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*C. h.*  
THE  
HISTORY  
OF  
PHYSICK;  
From the TIME of  
GALEN,  
To the Beginning of the  
*Sixteenth Century.*

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Chiefly with Regard to  
PRACTICE.

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In a DISCOURSE  
Written to  
Doctor MEAD.

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By J. FREIND, M. D.

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PART I.  
*Containing all the GREEK Writers.*

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London: Printed for J. Walthoe, jun. over against  
the Royal-Exchange in Cornhill, 1725.

THE HISTORY OF

THE CITY OF

NEW-YORK

FROM THE FIRST SETTLEMENT

TO THE PRESENT TIME

IN TWO VOLUMES

BY J. M. L.

NEW-YORK

1808

PRINTED BY

AT THE PRESS OF



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T O T H E  
R E A D E R.

**T**HE following Papers were, for the greatest Part, writ, just as they now appear, some time ago; only to pass away a few leisure hours, and without any design of making them publick.

I have since been persuaded to review them, and have made some Additions here and there, as I found occasion. The Reader will easily imagine, that I have been obliged to consult more Books than I had in those circumstances an opportunity to peruse; and some I have refer'd to, which have been published since the first  
com-

## TO the READER.

*composition of this Tract. The Sheets, which treat of an Inguinal Hernia, were printed off, before I had seen the Translation of Mr. Garengéot's Surgery; who is the only Writer I know of, that has taken notice of a Crural Rupture. However the Substance of what is here said upon that Subject, was explain'd in a Publick Auditory Fourteen Years ago.*

*If this short HISTORY of PHYSICK can be of any Use or Entertainment to those who are versed in the Ancients, or can excite others to be better acquainted with them, I shall think my labour very well employ'd: or if it should not, I shall not at all be dissatisfied with having amused my self in this Way.*

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SIR,

May 10, 1723.

**Y**OU will forgive me, that I was a little impatient to see the new Edition of Mr. *Le Clerc's* History of Physick: for you know very well, what a great Opinion I have always had of the Learning and Judgement, which he has shewn in the *Three* Parts already published. In them he brought down the History to the end of *Galen's* time: and having search'd into his Works, and into those of all the Writers, who preceded him, for above 600 years, he put together his Memoirs not only with indefatigable industry, but with exquisite skill. We find there very amply and clearly represented all the Philosophy, the Theory, and Practice of the ancient Physicians; so that there is

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scarce



scarce a Notion, a Distemper, a Medicine, or even the name of an Author, to be met with amongst them, of which he has not given a full and exact account.

IN this Edition, we have a Plan (containing *fifty-six* pages) which he designs should serve for a continuation of the History down to the middle of the 16th (the Title by mistake says the 17th) Century ; a space of 1200 years, and too large to be well explained in so short a sketch, tho' he had not filled half of it with relating all the obscure jargon and nonsense of that illiterate Enthusiast, *Paracelsus*.

YOU desire that I would send you my thoughts of this piece ; I must own I wish, I could give it the same character, which the former very justly deserved. But it seems to me not only a very imperfect and superficial performance, but in many particulars inaccurate and erroneous. I shall, in compliance



pliance with your commands, make a few cursory remarks, touching the History of Physick within this period: but as I have not the opportunity of having much recourse to Books, tho' indeed at present I have leisure enough, you must not expect any thing which is either correct or perfect; and must be satisfied only with some loose Observations, such as my memory chiefly can at present furnish me with, and which a short review of some of these Authors can suggest.

HE places *Oribasius*, *Ætius*, *Alexander*, and *Paulus*, all without any distinction, in the *Fourth* Century. I must confess all our Historians, even the best of them, give a very confused account of the Age, wherein these Writers lived: and are so careless as to be very well contented, if they come within a hundred, or two hundred years of their true time. But it is easy to observe, that, had he read these Authors with the same

care and attention, as he perused *Hippocrates* and *Galen*, &c. he might have adjusted their age much nearer to the truth, even by the help of their own writings. I shall explain this in a very few words. *Oribasius*, tho' he wrote his Collections in *Julian's* time about 360, liv'd however to the end of the *Fourth* Century, as himself and <sup>a</sup>*Eunapius*, who was acquainted with him, plainly intimate: and *Ætius*, who quotes him often, does not speak of him, as one who wrote just immediately before him. As to *Ætius*, it is plain, even from his own Books, that he did not write 'till the very end of the 5th, or the beginning of the 6th Century: for he refers not only to St. *Cyril*, Archbishop of *Alexandria*, who died in 444; but to *Petrus Archiater*, who was Physician to *Theodoric*, and therefore must have lived still later. *Alexander* flourished after this, for he mentions *Ætius*; and yet

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<sup>a</sup> In Chrysanthio.

there could not be many years distance between them : for, besides that he commends *Jacobus Psynchrestus*<sup>b</sup>, an eminent and pious Physician, who was *Archiater* to *Leo* the *Thracian* before the year 474, and whom we find mentioned by *Ætius* : *Agathias*, who set about writing his History in the beginning of the reign of *Justin* junior, in 565, - tells us, what a great figure this *Alexander* made at *Rome* in the reign of *Justinian* ; and subjoins a very handsome complement to him, and his *four* Brothers, who were very eminent in their several ways. Perhaps he might write not long before *Agathias* ; for *Alexander* himself informs us, that he compiled this book in an extreme old age, when he could no longer bear the fatigue of Practice. *Vanderlinden*, you may observe, thinks it very uncertain, whether he flourished in 600, 413, or 360. But these are small Chronological mistakes in an Author,

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<sup>b</sup> 5. 4. Of this *Jacobus* hereafter.



who can make *Aretæus* contemporary with *Strabo*, and *St. Gregory Nazianzen*, and place them all under the Reign of *Augustus Cæsar*.

*Paulus* was still later, for he mentions *Alexander* : and *Abulpharagius* the *Arabian*, who has left us the most explicit History of those times, places *Paulus* in *Heraclius's* reign, about the year 621 : and not as *Fabricius* represents it, <sup>a</sup> in the reign of *Constantin Pogonatus*, about 680. For the *Arabian* Author <sup>b</sup> puts *Paulus* just before the Chalifate of *Othman*, which began in 643, two years after the death of *Heraclius*. Besides we find by *Paulus's* account of himself, that he studied at <sup>c</sup> *Alexandria*, which must certainly be before that City was taken and plundered by *Amrou* in 640. By the way we may learn from hence, that even in this time the School of *Alexandria* made a great figure, since it still con-

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<sup>a</sup> Biblioth. Gr. Vol. 12. <sup>b</sup> 114. <sup>c</sup> 4, 49.



tinued to be the celebrated Place for teaching the Art of Physick : and the story *Abulpharagius* <sup>d</sup> tells of *Johannes Grammaticus*, a very learned Man, who lived then in that City, will shew us what an immense collection of books had been made there by the bounty of their Princes, since the burning of the *Ptolemean* Library in the time of *Cæsar*. For when *Amrou* had received orders from the *Chalif* to have the books destroyed, he distributed them throughout all the City, among those who kept *Bagnios* (of which then in *Alexandria* there were no fewer than 4000) and yet, notwithstanding all the havock one may suppose was made, it took up six months time to consume them.

THIS short detail will let us see, how much we ought to rely upon the accuracy of a late learned <sup>e</sup> Tract, which sets down the age of these Physicians and of *Diocles* thus ;

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<sup>d</sup> ib.

<sup>e</sup> Bibliothec. Literar. N. 2. 4.

A. C.

*Oribasius* — — — 350*Alexander* — — — 360*Ætius* — — — 400*Paulus* — — — 420*Diocles Carystius* — 500

THE last mistake about the time of *Diocles* is unaccountable: for not only his Letter to *Antigonus*, concerning Health, is preserved in the very Author, *Paulus*, who is supposed here to have lived 80 years before *Diocles*; but we all know this Writer was, as *Pliny* expresses it, both in age and fame, the *second* to *Hippocrates*, above 300 years at least before *Christ*: So that in this one article, there is only the small error of about 800 years. Give me leave to observe, that, if this Letter be genuine, it cannot be writ, as *Fabricius* supposes, to *Antigonus Gonatas*, King of *Macedonia*, who lived about 240 years before *Christ*; for this would remove *Diocles*

too far from the time of *Hippocrates*: and therefore it is more probable, that this *Antigonus* was elder, perhaps the successor of *Alexander*, about the year 320 before *Christ*, or 130 after the birth of *Hippocrates*; and this *Antigonus* answers the description here given of being an *old man*, as well as *Gonatas*; for he was above *eighty*, when he was killed. So that by this account the age of *Diocles* will fall out, as *Pliny* has described it, in the next generation after *Hippocrates*, much near the time of *Aristotle*.

THESE perhaps at first sight may seem to some mere Chronological niceties: but I believe upon reflection they will acknowledge, that unless this point (*i. e.*) the age of every author be first cleared up, any Historical detail of the state of *Physick* must be extreamly defective; and we must be at a great loss to know either what advances it made, or what changes it received in each different period of time.

Mr.



Mr. *Le Clerc* bestows no more than three pages upon all these *four* authors : and thinks this a sufficient reason to give for it, that they were *Compilers*. True it is, the *two first* and the *last* were chiefly such. But did they *compile* so, as to have nothing at all new, and what we may call their own in these very voluminous works ? far otherwise. For tho' I must confess, that there are not a great many things in them, in proportion to the bulk of their books, but such as may be found in *Galen* and others, and yet some there are too, in regard to the real improvement of the Art it self ; however as to what concerns the Historical part of it, which is the subject of our present enquiry, surely a great deal of matter may be pick'd out of these writers, fit to entertain our curiosity at least, if not to inform our judgment. One thing equally holds in the state of Learning, no less than in the state of Empires : It may be as much pleasure and instruction to the reader to observe



observe the gradual declension in each of them, as it is to trace the footsteps of their rise, or to take a prospect of them at their height.

BUT to speak more particularly of these Authors. Both *Oribasius* and *Ætius*, whose Volumes are very bulky, do collect indeed, but from many others as well as *Galen*. *Oribasius* uses a great variety of expression, of which we have this advantage, that often one place, or one author, explains another : and this justice ought to be done to him, that he helps us the better to understand several passages in *Galen*, relating both to Anatomy and Medicine. *Ætius* writes with more perspicuity : he treats of more distempers, than *Oribasius* comprizes either in his *Synopsis*, or his discourses to *Eunapius* ; and is fuller in describing the symptoms of them, and the method of cure.

Mr. *Le Clerc* says, these two furnish us with every thing which is essential in Theory or Practice, particularly in *Anatomy*

*tomy* and *Surgery*. But I must observe, that *Ætius* in his long work entirely omits *Anatomy*, and the use of the parts; and what is purely *Chirurgical* in him, is scattered confusedly here and there, and is imperfect as well as immethodical in comparison of what we find upon the same subject in *Paulus*: which is the reason, I suppose, that a great master in Surgery, *Fabricius ab Acquapendente*, chooses almost every where to follow the authority of this last writer, rather than that of *Ætius*. *Oribasius* indeed in two large Books (the two last of his remaining *Collections*) has described all the parts then known of the humane body, and assigned the proper office to each of them: but he has added little to what *Galen* has discoursed of in his *Anatomical Works*; and upon the account of this Treatise, rather than of any other of his Writings, he deserves the name given him of *Simia Galeni*. Only one thing we find, which is either omitted by *Galen*, or is lost together with  
some

some other of *Galen's Works*, the first description of the *Salivary Glands*, which is this. “ *f* On each side of the tongue, “ lie the orifices of the vessels, which “ discharge the spittle, and into which “ you may put a probe. These vessels take their rise from the root of the tongue, where the glands are situated. They rise from these glands, in much such a manner as Arteries usually do, and convey the *Salivary liquor*, which moistens the tongue, and all the adjacent parts of the mouth.”

HOWEVER *Oribasius*, tho’ he explains *Anatomy* so fully, has scarce any thing in all his *three* different works, which now remain, relating to *Surgery*, as far as it concerns *Manual* operation: unless those two little tracts *de Laqueis & Machinamentis* may be reckoned his, which are collected from *Heracles* and



*Heliodorus* : and yet, were these his own, how little of Surgery do they contain ? *Ætius* was, without doubt, a practitioner in Surgery & himself, and gives some little account of almost every operation, particularly he is as full in cases of the Eyes, as *Celsus* is : yet notwithstanding this, he takes no notice of a very material branch of Surgery, *Fractures* and *Dislocations*, in treating of which, *Celsus* thinks fit to employ an entire book.

*Oribasius* and *Ætius*, have preserved several fragments of Antiquity, and those of some value, not any where else extant : To omit a number of others, many of *Archigenes* and *Herodotus* (the chief of the *Pneumatick* Sect) of *Posidonius* and *Antyllus*, each of whom seems no inconsiderable writer : tho' the second is but slightly touched upon by Mr. *Le Clerc*, and the two latter not so



much as ever mentioned, tho' both commended, especially *Posidonius*, by *Galen*. *Antyllus*, as we may collect from <sup>b</sup> *Oribasius*, wrote several Books; wherein, tho' in different places, he treated of the *Gymnastick* Art. In those remains, which are here preserved, we read of some sorts of exercises, not mentioned by *Galen*, or any former author: among the rest the <sup>i</sup> *Cricilasia*, as the Translators, by mistake, call it, instead of *Cricöelasia*. This, as it had for many ages been disused, *Mercurialis* himself, who has made the most judicious inquiries into this subject, does not pretend to explain; and I believe, tho' we have the Description of it set down in *Oribasius*, it will be hard to form any Idea of what it was. *Ætius* has supplied us with some pieces of the same and other old writers, particularly of *Soranus* the *Methodist*, and of *Leo-*

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<sup>b</sup> Collect. 6. 21. <sup>i</sup> ib. 26. <sup>k</sup> 3. 8.

nides the *Episynthetick*, the last of which had great skill in Surgery. Add to this, that in both these authors several new medicines occur, undescribed by their predecessors.

*Oribasius*, either from *Apollonius*, or himself, speaks very fully of the good effects of bleeding by way of <sup>b</sup> *Scarification*, a thing little taken notice of by former writers: and assures us from his own experience, how successful he had found it in a suppression of the *Menses*, defluxions of the Eyes, Headach, straitness of Breathing, even when the person was extreamly old. He tells his own case particularly, when the *Plague* raged in *Asia*, and he himself was taken ill, that the second day he scarified his thigh, and took away two pound of blood; by which method he entirely recovered, as did several others, who used it.

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<sup>b</sup> Collect. 7, 20.

BY the way we may observe, that this was a different manner of *Scarify-  
ing*, from that performed by the help of  
*Cupping*. The *Arabian* Physicians seem  
to have a notion only of the latter pra-  
ctice<sup>b</sup>: but from this place, as well as  
from some passages of *Galen*, it is plain,  
that the Ancients made deep incisions in-  
to the skin by the knife; and therefore  
thought, by the large quantity of blood  
they could draw off, that this method  
was equivalent to opening a vein. The  
*Ægyptians* make use of it to this very day;  
and *Prosper Alpinus* describes at large the  
*Apparatus*<sup>i</sup>: they make first a strait li-  
gature under the ham, then rub the leg,  
and put it into warm water, and beat it  
with reeds to make it swell, and so sca-  
rify. A process in every particular dif-  
ferent from *Cupping*; and therefore in the  
cure of *Giddiness*<sup>k</sup>, *Oribasius* himself speaks  
of them, as two distinct operations.

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<sup>b</sup> Albucas. lib. 2.

<sup>i</sup> 3. 5.

<sup>k</sup> Synopf. 8. 5.



WE find in this Author the first account of a strange and surprizing distemper, *Λυγρόθρωπια*<sup>1</sup> or *Λυγρόθρωπις*, a species of melancholy and madness, which he describes thus. “ The persons affected, go out of their houses in the night-time, and in every thing imitate *Wolves*, and wander among the sepulchres of the dead ’till day break. <sup>m</sup> You may know them by these symptoms. Their looks are pale; their eyes heavy, hollow, dry, without the least moisture of a tear: their tongue exceedingly parched and dry; no spittle in the mouth, extreme thirst; their legs, from the falls and bruises <sup>n</sup> they receive, full of incurable sores and ulcers.” *Ætius* gives the very same description, with some little variation; only calls it

<sup>1</sup> 8, 10.

<sup>m</sup> *Ætarius adds, that they return home then, and come to their senses. Meth. Med. i. 16.*

<sup>n</sup> *Among Stones and Thorns, Ætuar. and from the bites of Dogs, Æt. 6. 11.*



Κυανθρωπία as well as Λυγανθρωπία, and observes it prevails most in *February*<sup>o</sup>. *Ætius* takes this passage, as he says, that is, makes a paraphrase of it, from *Marcellus Sidetes*, an Author who lived under *Adrian* and *M. Antoninus*; and who wrote forty-two Books concerning Distempers, in *Heroick Verses*, as appears not only from *Suidas*, but from an ancient Epigram<sup>p</sup> which is still preserved. *Paulus* has transcribed the same account of this disease word for word; the title of the chapter is, περὶ Λυκάων<sup>Q</sup> ἡ 9, &c. and *Lambecius* seems<sup>r</sup> to give us a very right explanation, how this blunder of Λυκάων<sup>Q</sup> here,

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<sup>o</sup> This seems to be the true reading, notwithstanding *Lambecius* inclines to that of φέβρῖα instead of φεβρῳάειον, the Month, which brings on the disease: But this is certainly a forced construction, and by no means proper Greek: And tho' he refers to some strange stories which *C. Peucerus*, a great dealer and believer in Magick, tells of the *Lycaones*, as he calls them, in the Northern Parts of Europe and Asia, who used to be seized with such a Distemper, only within twelve days of Christmas, this cannot in the least, I think, disprove the Authority of *Ætius*.

<sup>p</sup> Kuster in *Suidam.* q. 3. 16. <sup>r</sup> *Biblioth. Caesar.* lib. 6. 149.

and that of *Λουάνα* in *Suidas*, arose from mistaking the abbreviation used in the Manuscripts. But I cannot agree with him in the remark he makes, with regard to *Ætius*: the words of *Ætius*, both in the manuscript and printed works are, *ἔχ' μέχρ' ἡμέρας τὰ μνήματα μάλιστα διανοίβουσιν*, they *open* the Tombs. *Gorræus* corrected this place, and would have it read, *περὶ τὰ μνήματα μάλιστα διάβουσι*, they *dwell* or *live* among the Tombs: because *Paulus* says in the very same sense, *περὶ τὰ μνήματα διατρίβουσι*. *Lambecius* thinks this emendation wrong, because the authority of the Manuscripts is against it; but I am afraid this is paying too great a deference to the transcribers: for the word *διάβουσι* better answers the description of this Distemper, as it is set down by every one of these writers. The translation of *Oribasius* expresses it by *Vagantur*; and *Actuarius* describes it by *running about* the Sepulchres and Desarts, *ὧδε καὶ κείσε περιμέναι*, words which probably

ly he might take from *Oribasius*. This is very different from *opening* the Tombs: a circumstance, of which there is not the least hint in any of these authors. I might add, as another argument for this interpretation, that the *Dæmoniack* in the Scriptures, who was possessed with the same sort of madness, is represented as having his *dwell-ling* among the Tombs, and *abiding* in the Tombs, and *cutting* himself with the *Stones*. Besides the word *μγάλιστε* proves the correction of *Gorrhæus* to be right: for no sense can be made of it with the other reading: tho' *Donatus ab Altomari*<sup>u</sup> keeps, or rather confounds both the readings, and translates the passage, *circa defunctorum monumenta plerumq; versantur, eaque maxime aperiunt*. I should not have made this short excursion in the way of criticism, were it not to give you an instance, how the

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<sup>f</sup> St. Mark, 5. 3.    <sup>i</sup> St. Luke 8. 27.    <sup>u</sup> Meth. Med. c. 9.



most learned men may often mistake, when they pronounce their opinion in matters relating to Physick, without having some knowledge in that Profession, or being well versed in the several authors, who have writ upon that subject. However as to the Distemper itself, I shall only observe, that, if we may believe the reports of travellers, it has not been uncommon in some Countries, as *Livonia*, *Ireland*, &c. and we meet with some accounts of the like case, in our modern writers of Physick. An author just now mention'd, *Donatus*, says, he had himself seen *two* instances of it: and the History *Forestus* <sup>y</sup> relates, is very remarkable, and agrees with the description here given by *Oribasius*, not only with regard to the *Ulcers* in the legs, but to the circumstance I have been speaking of, the *frequenting Church-yards*. The Greek word

us'd to denote this Disease, expresses the nature of it very justly ; and yet *Vander Linden* is so careless a writer, that he makes it a synonymous Term for the *madness* of the *Wolves* themselves.

YOU see there occurs in *Oribasius*, however a compiler, something new in relation to Distempers, at least not to be found in any author now extant before him. He was, by all accounts, a Man not only of a great genius, but of great business and experience : and accordingly, if we peruse him with attention, which I believe has scarce ever been done by those who have pretended to give a character of him, we shall find very just rules of Practice laid down in several cases. To give you only an instance in one, that of an *Epilepsy* : he describes the cure both in the acute and the chronical Sort, that is, in the Fit as well as out of it. When the Fit is

over, he orders *bleeding* : and after four or five days, when the body is a little recruited, *purging* : three days after, *cupping* and *scarifying*. He repeats these evacuations, and sometimes *Sinapisms*, at convenient distances, and in the intervals gives proper nourishment, and uses *warm* medicines, such as *Castor*, *Mint*, *Rue*, and the *Cyrenaick* Juice. Whether this be taken out of *Posidonius*, as by reading *Ætius*<sup>a</sup> upon the same head there may be some reason to suspect, I cannot tell ; but the method is certainly right, and agreeable to a rational Practice. The Epitome of what *Galen* had said upon the same argument in the next chapter, is by no means so full and circumstantial. And you may perceive that, tho' *Oribasius* mentions *Specificks* (for the ancients had as great an opinion of them as we can have) such as *Pæony-root*, and that in the form of an *Epi-*



*leptick* Necklace : he is far from relying upon them alone, and lays the greatest stress, where indeed it ought to be laid, upon *Evacuations*. Nay, I might remark, that *Galen* in his famous Epistle to *Cecilianus*, the first Instance of this kind in antiquity, does not point out so exact a method of cure : though he wrote it on purpose upon this single argument, and not being acquainted with the particulars of the case, was obliged to *suppose* every circumstance which might happen, and therefore gives it himself the Title of *ὑποθήκη*. Even in this Letter, I say, which is none of the shortest, he lays down no methodical course of curing : but after a slight mention of *purging*, speaks of *two* or *three* Simples, *Squills* and *Wormwood*, &c. as serviceable in this Distemper, and then insists chiefly upon the manner of *Diet*, which indeed he describes at large. You will not imagine, by any thing I have said, that I have the less opinion  
of

of *Galen*, who I am sensible was a very knowing Man, and an excellent Physician, no ways without doubt inferior to *Oribasius* ; but here I am speaking only in the *historical* way, and relate facts as they appear upon the records we have left of the Ancients.

YOU will observe, that this method of *Oribasius* runs upon *Evacuations* and *Corroborants* ; which some injudicious persons have thought not only seemingly contradictory, but utterly incompatible ; and indeed it is a very vulgar error to think, that, when a Physician chooses to apply one of them, he must of course in his judgment condemn the other. Experience will convince us, that the method of using both of them, is so far from being inconsistent, that it is the most rational of any, and often extremely necessary, not only in this and other Distempers of the *Head*, but in several sorts of *Feavers*. An understanding Physician may collect this  
from

from his own Practice ; and he who has a clear notion of the *Animal Oeconomy*, will be further satisfied of the reason of it : he will easily comprehend the necessity there often is of *emptying* or making a *Revulsion*, in order to remove obstructions, which may arise from a redundancy or viscidities of humours : and at the same time will discern, of what service it will be to apply such Remedies in their turn, as may raise the blood, or to speak more Physically, make the Fluids circulate in their natural course, and restore the solid Parts to their Tone.

THESE few Instances will be sufficient to shew, that even this Author, tho' he be chiefly a Collector, may furnish us with some new and useful reflections in Physick ; and he who reads him with this view, may find some other passages of the same kind, not to be met with in the more antient writers.



*Oribasius*, tho' commonly reckoned a *Sardian*, was born at *Pergamus*<sup>k</sup>, and bred up, together with *Magnus* and *Ionicus*, in the school of *Zeno* the *Cyprian*, who taught then I suppose at *Sardes*, tho' afterwards he removed to *Alexandria*, where he became a famous professor<sup>l</sup>. *Eunapius*, who had good knowledge in Physick, and is the same person probably, to whom the four books *De Euporistis*, &c. are inscribed, represents *Oribasius* as the greatest Scholar and Physician of his time, and a very engaging and agreeable man in conversation. He describes him as no less considerable in his Interest, than in his Learning: according to his account he contributed very much to the advancement of *Julian* to the Empire, who in return made him *Quæstor* of *Constantinople*<sup>m</sup>, and who, as appears by one of his<sup>n</sup> Letters, had an intire confidence in him.

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<sup>k</sup> *Eunap. in Oribasio.*

<sup>m</sup> *Suidas.*

<sup>l</sup> *Julian. Epistol. 47.*

<sup>n</sup> *Epist. 17e*

In the succeeding Emperor's time, thro' the envy of his enemies, he fell into disgrace, had all his estate confiscated, was banished, and delivered into the hands of *Barbarians* : amongst whom, in a little time, by his courage and skill, he gained so much love and reverence, that they, seeing what great Cures he performed, adored him as a God. At last he was recalled by the *Roman* Emperor, and flourished in reputation and riches, at the very time, when *Eunapius* wrote this account, which must be near the year 400 ; for *Eunapius* was then as it should seem in the first rank of Physicians \*, and was but twelve years old at the death of *Julian* in 363.

*Oribasius* wrote *Seventy* (according to *Photius*) or (according to *Suidas*) *Seventy two* Books of Collections, which he compiled not only from *Galen*, but from all the preceding Physicians, and his own

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\* In Chrysanthio.



experience, at the desire of *Julian*; the *Fifteen* first of which are only remaining, and *two* others treating of Anatomy, which are called by the translator *Rasarius* the 24th and 25th of that Collection. Afterwards he made an Epitome of this great Work, and reduced it into *nine* Books for the use of his Son, *Eustathius*. He also wrote *four* Books about Medicines and Distempers, as was before observed, to his friend *Eunapius*. Besides these, *Photius* gives an account of *two* other Pieces, extant in his time; one consisting of *four*, the other of *seven* Books, which were merely an Epitome of *Galen's* works, and dedicated likewise to *Julian*: *Paulus* mentions this Epitome<sup>f</sup>; but it is now lost, as are some other Tracts, which *Suidas* takes notice of. There are several Receipts of *Oribasius* quoted by *Ætius*. The Commentaries upon the Aphorisms of *Hip-*

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<sup>f</sup> 2. 1.



*pocrates*, put out by *Guinther* under his name, are, without doubt, spurious. It is a little surprizing, how this Editor, who was a Man of some learning, could take them to be genuine: for besides that it is a trifling work, and as to the matter no ways worthy of *Oribasius*; the Author, whoever he was, manages the forgery with so little Art, that he makes *Oribasius* write this at the desire of *Ptolemy Evergetes*<sup>g</sup>, who were so far from being contemporaries, that there is the distance of six hundred years between them. The recommending sometimes the holy Scriptures, sometimes *Terence* and *Virgil*<sup>h</sup>, as books proper to be read in particular cases, and the quoting this Hemistick out of *Ovid*<sup>i</sup>, — *Timor addidit alas*, is still more absurd: and makes it probable, that these *Commentaries*, such as they are, were writ in *Latin*, and by a *Christian*.

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<sup>g</sup> Præfat.

<sup>h</sup> 2. 39.

<sup>i</sup> 2. 35.

*Barchusen* has lately given us a sketch of this author's *Theory*, with regard to Distempers: but surely he might have spared his pains, since *Oribasius* has not a syllable upon this head, but what is to be found in *Galen*. And this he might have made as good a reason for saying nothing upon this article, as he does, when he mentions *Ætius*: who indeed speaks more largely to the causes of Distempers, and not only from *Galen*, but from several Authors not mentioned by *Oribasius*. I have often admired the profound judgment of this modern Writer, who could in *two* several shapes, first in ingenious *Dialogues*, and now in plain *Dissertations*, compose a long work concerning the *History of Physick*, and yet would only confine himself to give an account of the *Theory*, which each Physician made use of: As if it were of less importance to consider their *Practice* both in *Physick* and *Surgery*, and compare it with the methods of

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of those who lived either before or after them.

I HAVE said something already of *Ætius*, but shall observe this further of him, that in his *Chirurgical* pieces there are many things worth taking notice of; he mentions several ways, and not a few, which he had seen practised in his own time, of performing some of the operations; and he speaks of his own experience, not only in the chapter concerning *Castration*<sup>k</sup>, but in many other places. There is in him indeed a great deal upon this head, which is neither in *Celsus*, nor *Galen*: and the manual processes he describes in these cases, are at least double in number to what may be found in them. Nay, there are some, which are even omitted by *Paulus*. To give an instance or two: He relates, from *Asclepiades*, the manner of curing an *Anasarca* very exactly<sup>l</sup>: This

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<sup>k</sup> 4. 1. 122.

<sup>l</sup> 3, 2, 30.



is by making incisions on the inside of the leg, about four fingers breadth above the ankle, as deep as generally those in bleeding are made. At first a little blood issues out ; after, there is a continual discharge of water, without any inflammation, so that the aperture cannot be closed, till the humour is spent, and the swelling gone down ; and this drain cures the Distemper without any internal Medicine. *Leonides* the *Alexandrian*, an Author who lived after, but near *Galen's* time, and whose remains we find chiefly in *Ætius*, says further, that if the incisions in the legs do not make a discharge quick enough, some ought to be made in other parts of the body : in the thighs, in the arms, or in the *Scrotum*, if swell'd, by which means a great quantity of watry matter may be evacuated. *Archigenes* adds, that by these scarifications, not only the swelling of the thighs and legs, but that of the *Belly* has been found to subside. And

no doubt, where an *Ascites* is attended with an *Anasarca*, this method may succeed in some degree; tho' in a simple *Ascites* it must be ineffectual. The operation itself is mentioned by *Hippocrates*; and has been practiced from his time, down to our own days, with great success. *Sylvius de le Boe* proposes another way of *Acupuncture*, and assumes the discovery of it to himself; though 'tis plain, it is all taken from the Description here given, and in so many words described by *Avicenna*: But this is not the only modern invention, which we may meet with in the ancient writers of Physick. However, it is obvious to all, who have ever seen any thing of Surgery, that the *Lancet* is much to be prefer'd to any *Needle*, in opening *Anasarca* Swellings.

WE find many passages in this Author, to convince us, how much both the actual and potential *Cautery* was then



in use ; particularly in a *Palsy*<sup>m</sup> he says, from *Archigenes*, that he shou'd not at all hesitate to make an *Eschar* either way, and this in several places : one in the nape, where the spinal Marrow takes its rise ; two on each side of it ; three or four on the top of the head, one just in the middle, and the three others round it. He adds, that in this case, if the *Ulcers* continue running a good while, he should not doubt of a perfect recovery. There are many, who think *Issues* a modern invention, and not in the least known to the ancients ; but surely any one who considers the description here given, must be satisfied, that they had as clear a notion of this matter, as we have at this day. Nor is this the single instance we meet with in *Ætius*. He is still more particular, when he comes to order this application in an inveterate *Asthma*<sup>n</sup>, after all other

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<sup>m</sup> 2, 2, 28.

<sup>n</sup> 2, 4, 68.



remedies have been tried in vain. One he says should be made on each side near the middle of the joining of the Clavicle, with that caution, as not to touch the wind-pipe : then two other little ones near the *Carotids* under the chin, one on each side, so as that the Caustick may penetrate no further than the skin. Two others under the breasts between the third and fourth ribs ; and again, two more backwards towards the fifth and sixth ribs. Another besides in the middle of the thorax, near the beginning of the *Xiphoid* cartilage, over the orifice of the stomach. In like manner one on each side between the eighth and ninth ribs. Again ; there should be made three others in the back, one in the middle, and the two others just below it, on each side of the *Vertebrae*. Those below the neck ought to be pretty large, not very superficial, nor very deep : and all these ulcers should be kept running for a long time. He advises

the same sort of application in an *Empyema*, and a *Phthisis*: and in both those cases we may observe, that he orders the Eschar should be made *circularly*, which no doubt keeps the sore longer from healing, as is the manner of making issues by a *Caustick* to this day. *Paulus* transcribes, almost word for word, what has been mentioned in relation to an *Asthma*, and applys the same direction to the cure of an *Empyema*; only adding, that the root of *Aristolochia* should be used, with Oyl set on fire by the actual Caution. In the same distemper he relates from *Leonides*, the manner of passing a pointed Iron red-hot even thro' the *Pleura*, to let out the purulent-matter from the *Thorax*. He mentions too the common way of making a *Paracentesis*; but observes, that this operation either kills the patient immediately, or leaves an incurable *Fistula*. This *Albucasis* takes from *Paulus*: but the first observation is not always true; and in so dan-



dangerous a case, surely one would at least compound for so little an inconvenience as this last. *Ætius* not only in other places<sup>o</sup>, but particularly in the cure of a *Sciatica*<sup>p</sup>, describes the several ways of making potential Cauteries, in the Thighs, and elsewhere; and tells us how the Ulcer may be kept running, who in this is every where followed by *Paulus*<sup>q</sup>. From this account of *Ætius* I think it is plain, that the ancients very well understood the effect of *Issues*, and the best way generally speaking how to make them, which was by *Causticks*: and they are still found to be a successful application, in the very distempers he particularly recommends them for. I will only observe, that the three chapters concerning the *Palsie*, *Empyema*, and *Sciatica* are taken from *Archigenes*; and therefore prove, that the antiquity of this operation goes as high at least as the time of *Domitian*. *C. Aurelianus* men-

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<sup>o</sup> 4, 2, 24. 4, 2, 25. <sup>p</sup> 3, 4, 3. <sup>q</sup> 6, 2, 3, 73, 53.



tions both these ways of cauterizing in a *Head-ach* and *Sciatica*, but in the former case does not at all approve of it. However according to him, *Themison*, who was more ancient than *Celsus*, advises it in a *Phthisis*. It is very certain indeed, that this use of the Cautery was well known to *Hippocrates*, and is in very plain terms described by *Celsus*, who recommends it, and that always *actual* in a *Dropsy*<sup>r</sup>, *Epilepsy*<sup>s</sup>, *Sciatica*<sup>t</sup>, and *Phthisis*<sup>u</sup>: and to shew the true idea he had of the advantage there was in the discharge made by this operation, he lays it down as a perpetual rule in all these cases, “ That the ulcers should not be  
 “ healed, but suffered to continue run-  
 “ ning, ’till the humour was spent, and  
 “ the disease reliev’d.” So *Ætius* in the case of a bite by a mad dog, advises the keeping them open forty, or sixty days, and if they close, to open them again.

3, 21.

s 3, 23.

t 4, 23.

u 3, 22.

And this was certainly the practice of the ancients, and equivalent no doubt to the manner now in use. Some would make a distinction between the *Cauteries* of the ancients and the modern *Issues*; but the short view I have here given of this practice will let us see, there is no material difference at all. The moderns indeed have thus far improved the experiment, that they generally order them (according to the advice of *Rhazes*<sup>x</sup>) in the more fleshy parts of the body; or rather, in the interstices of the Muscles; whereas we find the ancients sometimes made them near a bone, as in the *Sternum*, the Nape, the Clavicles, &c. where, if any thing is put in to keep the issue open, it must press upon the *Periosteum*, and create great pain; besides that in such a part the discharge, on which the cure chiefly depends, can never be so considerable. This was the

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<sup>x</sup> De Cauteriis.



way, and the only one, of making *Issues* among the ancients; for cutting them with the *Knife* was a much later invention. Many prefer the *actual* Caustery to the *potential*, because the *Eschar* separates much sooner; but as the former has the air of greater severity, the latter is generally substituted to gratify the timorous humour of the patient: and for the same reason it may be practicable to make the *Issue* so much the deeper. Tho' *Glandorp*, who has writ very well upon this subject, has such an opinion of the former manner, that he had rather have *six* *Issues* made that way, than one by the other; and in fourteen years practice he says, he never made use of the *potential* Caustery but *twice*.

IT may not be improper in this place to say something of a particular species of *Issues*, called a *Seton*, very plainly described, as Mr. *Bernard* observes, by *Lanfranc* four hundred years ago.



And if we examine into the writers before *Lanfranc*, we shall find the practice of it still more ancient. *Roland*, who lived earlier in the *thirteenth* Century, not only mentions the thing, but uses the very word <sup>z</sup>, and gives a description, how the needle with the thred should be passed. *Camanufali*, a Physician of *Baldach*, or *Bagdet*, who, at the latest, lived before that City was taken by the *Tartars* in 1258, and who wrote about the distempers of the *eyes*, and collected all that the *Arabians*, *Chaldeans*, the *Jews*, and *Indians* had said upon that subject, mentions a *Seton* twice; in the cure of a *Cataract* <sup>a</sup>, and what he calls the *Lunella* <sup>b</sup>, an impostume between the *Cornea* and the *Uvea*. *Albucasis*, I think, describes the operation plainly, where he treats of cauterizing the armpit, for a dislocation of the shoulder, when it arises from too great a flux of humours; and makes use of a Cautery, which has two or three spits

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<sup>z</sup> 1, 34, 36.
<sup>a</sup> 6, 3.<sup>b</sup> 6, 4.

or branches, very small, and sharp, and runs into the skin, 'till it comes out on the other side<sup>c</sup>. The same method he uses in tumours of the *Spleen*<sup>d</sup>, and advises that the ulcer should be kept running for a long time. *Franciscus Pedemontanus*, who was Physician to *Robert King of Sicily* about 1310, transcribes the words of *Albucasis*, in speaking of a dislocation in the same place<sup>e</sup>. There are not only these authorities for the *Seton*'s being made use of in those early times; but the discourse of *Rhazes* concerning *Cauteries* make it clear, that it was a familiar practice in his age. He describes the several places it should be made in, in the neck, between the ribs, in the belly, &c. and for what distempers, &c. The translator calls it *Seatorium*; and these ulcers, he says, must be kept open *cum tentis & petiis*, which is as plain a description of a *Rowel* or a *Seton*, as words can express. For pains

<sup>c</sup> 1, 26.<sup>d</sup> 1, 31.<sup>e</sup> *Ægritud. Junctur.* 3.

in the ears, eyes, or teeth, he particularly advises one to be made either in the middle or pulp of the ear, and the running to be continued, as long as it can. I the rather mention this, because it seems to be not improbable that this hint, as many others have been, was at first taken from a practice very common among Cattle-Doctors. Columella, who wrote in Claudius's time, describes the operation very fully, and elegantly in these words. “ *† Præsens etiam remedium cognovimus radiculae, quam pastores consiliginem vocant. Ea in Martis montibus plurima nascitur, omnique pecori maximè est salutaris. Lævâ manu effoditur ante solis ortum, sic enim lecta majorem vim creditur habere. Usus ejus traditur talis; æneâ subulâ pars auriculæ latissima circumscribitur, ita ut manante sanguine tanquam O literæ ductus appareat orbiculus. Hoc & in-*

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*† De Rustica 6, 5.*



“ *trinfecus, & ex superiore parte auriculæ*  
 “ *cum factum est, media pars descripti or-*  
 “ *biculi eâdem subulâ transuitur, & fa-*  
 “ *cto foramini prædicta radícula inseritur;*  
 “ *quam cum recens plaga comprehendit,*  
 “ *ita continet, ut elabi non possit: in eam*  
 “ *deinde auriculam omnis vis morbi, pe-*  
 “ *stilensque virus elicitur, donec pars, quæ*  
 “ *subulâ circumscripta est, demortua exci-*  
 “ *dat, & minimæ partis jactura caput con-*  
 “ *servatur.”* The method here men-

tioned is still in vogue with the herdsmen; and what is proposed by *Columella*, is, with regard to the *Plague* or some epidemical infection among Cows: and accordingly, we find the same remedy by *Issues* was afterwards applied to a humane body in the same distemper; first by *J. Arculanus*, who flourished in the fifteenth Century; and from his example, several Physicians in the succeeding age, recommended them as one of the most effectual preservatives in that terrible case.

As to a *Seton* in particular, it may be observed, that in *Albucasis's* time, and for some hundred years after, the way of making it was always by the *Cautery*. *Hollerius* is the first, or at least one of the first, who made it, as is the usual manner now, with a needle unheated; which makes it the more surprizing, that *Hildanus* should so long after describe it as an invention of his own. However, perhaps the cutting a *Seton*, without a Cautery, may be still more ancient; and there seems to be some ground in the criticism of *Severinus*, that by the word *Sectorium*, used in the translation of *Rhazes*, it is implied that it was not done by *Ustion*: and indeed it is very plain, that *Rhazes* distinguishes the *two* ways of performing this operation either by *burning*, or *cutting*, and sometimes by both jointly: and in the article where he orders a *Seton* to be *cut* between the navel and the clavicle for an *Asthma*, *Phthisis*, *Pleurisy*, &c. he



&c. he adds, that a *Cautery* likewise may be applied in the same place, for the same complaints. I must observe further upon this subject, that whoever reads this short chapter of *Rhazes*, and considers the distempers, which these several sorts of Issues are prescribed for, will quickly be satisfied, that the ancients knew the true force of this application, as well as any of the moderns have done since. Give me leave to conclude this head with a remark which *Severinus* makes upon the following passage in *Rhazes*. “ — *Nota hoc generale esse, in*  
“ *omni loco Fontium cauterizandum est,*  
“ *per quem Fluxus humorum transire vide-*  
“ *tur ad membrum aliquod, sive deorsum*  
“ *sive sursum, ad intercipiendum Fluxum.-*”  
He imagines, that from hence the word *Fonticulus*, as used in this sense, took its rise. The observation is ingenious and natural; and as this term is certainly modern, it may probably be the right way of accounting for its first introduction.

*Ætius*



*Ætius* is the first, who, from *Leonides*, has given us any account of the *Dracunculi* <sup>g</sup>, a sort of worms sometimes little, sometimes large, which breed most frequently in the thighs, and now and then in the muscular parts of the arm, and of the sides (*Paulus* adds) in children. The distemper chiefly affects children, and is oftenest observed in *Æthiopia* and *India*. *Galen* never saw it, only had heard there was such a one in *Arabia*<sup>i</sup>: and therefore does not pretend to give a description of it. These worms move under the skin, without giving any pain; but in time the place suppurates about the extremity of the worm, the skin opens, and the head of the animal appears. Care must be taken to let the worm come out intirely of itself, or by the help of a string or incision: for if it breaks, and part of it remains behind, it occasions exquisite pains. *Paulus*

<sup>g</sup> 4. 2. 85.<sup>i</sup> Loc. affect. 6. 3.<sup>b</sup> 4. 59.

*lus* proposes another way of drawing it out, by fastening a little leaden weight to the worm, to bring it away by degrees ; but others, he says, think that by this process it would be liable to break. The worm sometimes is extremely long, commonly of ten or fifteen palms length ; *Albucasis* tells us he saw one of twenty ; and *Rhazes* mentions a case, where a person had forty of these worms in his body, and recovered. Several passages to the same purpose, we may find in more modern Historians<sup>k</sup>. The *Arabians*, from the distemper being frequent at *Medina*, gave it the name of *Vena Medinensis* ; and they called it a vein, because they doubted, as *Soranus* did before, whether it was a living animal and not rather some concreted substance like a nerve : and therefore *Avicenna*, contrary to the method of *Paulus*, treats of it, not amongst *Worms*,

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<sup>k</sup> Cleric. de Vermibus, *Kempfer*, &c. Philosoph. Transact. n. 225.



but amongst *Abscesses*. In this certainly they were mistaken; and *Leonides* here we see, in direct terms, calls it an *Animal*. *Velschius*, to display his *Arabick* learning, of which indeed he has a great deal, has written a whole book about it, by way of comment upon a chapter in *Avicenna*, concerning this subject: but *Avicenna* adds little to the description here given in *Ætius*: and if *Velschius* thought it more proper to have an *Arabian* author, and no other to comment upon, he might as well have chosen *Rhazes*, who many years before wrote as fully of this distemper as *Avicenna*. The *Vena Medinensis* is, by many authors, and by Mr. *le Clerc* himself, in his supplement, supposed to be the same as another distemper described by the *Arabians*, the *Affectio Bovina*, which is a little worm, and often found in Cows. But *Ætius* plainly distinguishes the two sorts, large, and little: and *Albucasis* has two<sup>l</sup> sepa-



rate chapters concerning these two diseases, and the description he gives of them is very different.

This distemper is often attended with a fever for two or three days, and sometimes brings on terrible symptoms, and ends in Abscesses, which require many months to cure them. It is very common in *Guinea*, and chiefly among the natives : *Kempfer*<sup>m</sup> found it so too at *Ormuz* upon the *Persian* gulf, and therefore calls it *Dracunculus Persarum*, and not only there, but in *Tartary*. He observes that the disease prevails most in the hottest climates and in the hottest weather ; and attributes the production of these worms to the stagnating rain-water, which is so much made use of in such countries. It is easier, he says, to be cured in the climate it is bred in. He saw this worm *twice* alive, and describes the manner of extracting it at

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<sup>m</sup> Fascicul. 524.

large : which is much the same as the Surgeons now use in the *West Indies* with the Blacks.

*Ætius* is every where full of *out-ward* applications, and employs almost a whole book<sup>n</sup> particularly upon *Plasters* : where he amasses together not only those which *Galen* has described in his treatises concerning the *composition* of Medicines, but all those he could find in the more modern authors, *Persians* and *Ægyptians* as well as *Greeks*. These he ranges according to the several virtues with which they are endowed, and the different uses to which they are adapted. He is very accurate and distinct in explaining the reasons, and describing the forms of those which make by much the largest part of this class, those I mean which are designed for *discussing* or *suppurating* humours. We shall find he speaks very sensibly of this matter :

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“ When any hardness begins, and some  
 “ sense of feeling still remains, *emollient*  
 “ medicines, he says, should be appli-  
 “ ed, such as at the same time mode-  
 “ rately *discuss* : and many there are  
 “ which partake of both these qualities.  
 “ For violent discutients, which evacu-  
 “ ate without softening, do indeed les-  
 “ sen the swelling ; but leave afterwards  
 “ an incurable evil. For the thinner  
 “ humours being exhaled, those which  
 “ are more gross and terrene stay behind,  
 “ and are not to be removed by Art ;  
 “ therefore such applications should be  
 “ used, as have a mixture of both. First  
 “ therefore we should try *Emollients*, then  
 “ proceed to *Discutients*, and mix them  
 “ by degrees with the other. The ha-  
 “ bit of the body must likewise be con-  
 “ sidered, as well as the condition of  
 “ the swelling. By this means we may  
 “ attain to a knowledge, conjectural  
 “ indeed, but not entirely devoid of  
 “ Art : and by trying the experiment



“ two or three days in the manner de-  
 “ scribed, we may easily discern, whe-  
 “ ther we should diminish, or increase  
 “ the force of the Medicine.” And when  
 he comes to mention the distinction  
 between *discutients* and *suppuratives*, he  
 is still more explicit. “—Those who  
 “ have described the virtues of com-  
 “ pound Medicines have called some  
 “ plasters *drawing*, and some *discussing* :  
 “ there are too those, that share both  
 “ these qualities, which have a great af-  
 “ finity one with the other. For those  
 “ that *draw*, do at the same time *dis-*  
 “ *cuss*; and those that *discuss*, *draw* :  
 “ and they act either way with more  
 “ energy, according as the predominant  
 “ quality prevails. And therefore when  
 “ we reduce them to the form of a *Pla-*  
 “ *ster*, we must mix with them some-  
 “ times *Pitch*, sometimes *Wax*, some-  
 “ times *Oyl* or *Rosin*, &c. such substan-  
 “ ces not having, in any great degree,  
 “ either a *drawing* or a *discutient* faculty-”

And yet when he comes to give us a detail of these Plasters, he leaves us in confusion and uncertainty as to the operation of them: and does not distinguish enough which are most proper for discussion, and which for suppuration; nay, often the same Plaster is recommended strongly for both intentions. What he says of some discussing Plasters is very extraordinary, not to say extravagant; he has one which he stiles a ° most wonderful discussor of Abscesses; and that called *Helladicum*<sup>p</sup>, he tells us, disperses Abscesses, when turned into Pus. But I may, I believe, venture to affirm, that it is out of the power of any medicine, to work such a miraculous change in Abscesses, which arise upon an *Inflammation*. For as many times no application will hinder the making of matter in a tumour, so when it is once made, I conceive it is certain, that no art can give any cure but by letting it out.

° 14.

p *ibid.*

But as this subject wants some further explanation, allow me to enlarge upon it, so far at least as this author shews me the way. One would naturally think, that the Practice of *outward* applications, which began so early and has continued in all ages almost the same, might have been settled and adjusted to an exact nicety. No distempers have ever oftner occurred, than *Humoral Tumours*: and yet if we look into the writers of *Surgery*, ancient as well as modern, tho' they have been very luxuriant in distinguishing these Tumours into their proper species and families, we shall find this subject handled with so much perplexity and confusion, that the indications and the remedies will appear to us equally uncertain. To re-examin only the *two* most general ways already mentioned, with which *Tumours* are treated, and those very distinct from and contrary to one another, *Discussion* and *Suppuration*: if our practice must be directed by what we read,

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we shall often find our selves at a loss, which of the methods ought to be followed ; or if we should chance to find it, what Medicines must be applied to make that method succeed : one author extolling that for the best *discutient*, which is as vehemently recommended by another to promote *suppuration* ; tho' sure if we would make use of the light, which *Anatomy* gives us into the true texture of the cutaneous parts, nothing might be more clearly explain'd, than the nature and reason of these operations. In order therefore to form a right notion of *discussion*, we must first of all suppose, that the several fluids which make these tumours, are as yet contained in their proper vessels : but an obstruction arising in the capillary arteries, either from a fault in the blood, or from external accidents, the humours, which should circulate, stagnate in the part affected, and by a continual afflux distend the vessels so much beyond their dimensions,

sions, as to raise a *swelling*. Now from the very account here given of the production of a tumour, 'tis plain what are the proper and genuine intentions of *discussion*, which are *two*; that is to *open* the pores so, as that the redundant matter may be in some measure discharged by perspiration; and to *attenuate* and alter the humours so, (and not only by outward but by inward methods) that they may recover their usual course thro' the capillary vessels: and these *two* designs must be carried on jointly, which, whenever they are, are the adequate means to make the tumour subside and vanish. For if we should only pursue the *first* intention, that of *opening* the pores, the thinner part of the matter, as *Ætius* very justly observes, would fly off, whilst the remainder grows stiffer, fixes the obstruction, and thickens the membranes. Hence so often, upon the use of violent hot discussives, which promote too free a perspiration, is left an

incu-



incurable induration and *Scirrhus* : in the same manner as in some *Feavers*, especially what are called the *slow*, too liberal a use of *Diaphoreticks*, without proper *Evacuations*, renders the blood more viscid than it was before, and more liable to stagnation ; which ill-judg'd and preposterous method not only gives no relief to the original complaints, but lays a foundation for many distempers, and perhaps of a worse kind, to succeed. If we consider this matter with any attention, we shall easily perceive how ill *Discussion* is defined by some writers of Institutions, to be an *insensible Evacuation* ; the second intention to *attenuate* and alter the humours, which is of equal necessity, being left out in the definition. For this reason, in order to make a right discussion, we find *Ætius*, and after him *Hildanus* advises always some share of *emollient* ingredients, whose particles may serve to qualify the force of the others, and restrain the too vehement



ment and precipitate diffipation, that would otherwise be made thro' the skin. And upon the same view it is, that some practical writers so highly commend a mixture of *spirituous* and oily medicines, not only to discuss swellings, but to ease pain. Accordingly our experience tells us, how effectual *Oyl of Turpentine*, and all *chymical* oyls are, in these cases; which are nothing else but spirits locked up, and, as the phrase is, concentrated by some oleaginous substance, as we may argue from that easy rarefaction and quick ascent by fire; and therefore, upon repeated distillations, being more freed from the viscous particles, they are converted into spirits, and are so called. So necessary it is to carry on the intention of attenuating at the same time, that we make a discharge. Hence those applications, which have a mixture of *Mercury* in them, prove the most effectual *discussives*: and a medicine chiefly consisting of *Cinnabar*, is what is most recom-

recommended by *Alexander*, for dissolving the concretions in the joints, which arise from a Rheumatism or Gout. Accordingly we should never fail of seeing the same effects, if *Opium* and *Camphir*, two of the most *attenuating* substances which perhaps we have, had a larger proportion in *discussive* compositions. On the other hand we must pursue this design of *attenuating* in such a manner, as not to use those things, which clog or obstruct the cutaneous passages. *Oyls*, which are very *glutinous*, come under this character; and therefore *Ætius*, upon the application of the *Persian*<sup>p</sup> plaster, which he describes, and even commends to a degree of rapture, gives a particular caution, that no *oyl* should be smear'd upon the part. *Galen* expressly says, that *oils* stop the pores; and accordingly advises *Unction* after Bathing, for this reason, that they should not perspire too much. And

oyl of *Mastich*<sup>a</sup> is a remedy much esteemed by our author for the cure of immoderate *sweats*, because it obstructs the pores. Upon the same principle *C. Aurelianus* argues against the application of oyl of *Roses*, in the accession of a *phrenzy*. And it was more upon this account, no doubt, that the *Athleticks*, among the ancients, used to anoint all their bodies over with oyl, than for the reason commonly assigned of making any *fast* hold more difficult: for perspiration being stopt, there was a larger supply of blood and spirits to the muscles, which enabled them to exert a greater force and vigour, during their exercises. Therefore perhaps the invention of *Unctions* is generally attributed to *Herodicus*, who was the first that prescribed *Gymnastick* medicines. *Hippocrates* and *Galen* forbid the use of oyls and fats in fresh wounds and ulcers; for this reason, that they keep in

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<sup>a</sup> Lib. I.



the matter, which should be discharged, and often occasion a *fungus* : and *Hildanus* in the composition of his *Unguentum Aegyptiacum*, so highly commended by himself and others for the cure of *Gangrenes*, though now not so much in vogue, uses neither *oyl* nor *fat* : and 'tis no impertinent caution which he gives about the *cataplasma* he recommends for the same purpose, that great care should be taken, lest the flowers of beans and lentils, &c. he makes it with, should be boiled too much, and by that means contract a viscosity, so as to endanger a stoppage of perspiration. And the reason is plain to any one, who understands the *Anatomy* of these parts : for we see the plates of the cuticle so disposed and ranged one over another in such a manner, that they are often stuck and glewed together, even by so thin and subtile a substance, as that of perspiration it self. So in inflammations and strains, the *glutinous oyls* are certainly prejudicial : and  
instead

instead of discussing the swelling, bring it to matter; and if this be superficial and near a bone, to the no little hazard of making it foul. The like observations have been made of strong *suppurative* medicines used at first in a *Paronychia*, when the tumour has lain deep and close to the bone; and in this very case you will find a different practice marked out by *Ætius*<sup>r</sup>. Our own Surgeons with great judgement divide the tumour length ways, upon one side of the *Tendon*; which saves the patient a great deal of pain, and secures him from danger. *Wax* is ranked only amongst the suppuratives by *Celsus*, and no doubt properly belongs to that class: and yet what a share is allowed it now in *discussive* applications? *Gums* and *Resins*, though they are complex substances, and have a mixture of penetrating parts, yet they contain some too of such a glutinous nature, as *Ætius* himself acknowledges, that they seem adapt-

ed more to close the pores, than to clear them : and therefore, by *Fallopious*, who has distinguished better between *discutients* and *suppuratives*, than most writers, are thought improper for the intention of *discussing*. *Hildanus* gives us many instances of the mischievous consequences of *Paracelsus's Stictick* plaster, so mightily cried up in his time for the cure of *wounds* : and he attributes these ill effects to the large proportion the *Gums* have in it, which he says constantly increase the flux of humours to the part they are applied to. So in *Phlegmons* gummy plasters laid on too early, raise the swelling, and heighten the pain. For when we rarify and attract the humours, and at the same time obstruct the pores, so as to hinder a free discharge ; we are so far from promoting *discussion*, that we put nature upon another, and indeed a quite different effort, that of *suppuration*. And yet if we examin the composition of the *discutient* plasters



plasters and ointments now in vogue, I am afraid many of them will come under this censure. The practice of the ancients was, no doubt, more simple and uniform. *Hippocrates*, without dispute, understood *Surgery* very well, and yet we read of no plasters in his works: he uses a few *Cerotes* only, and those but seldom. The *ointments* he mentions were not any thing like what we call so now, but were either simple *oyls*, or an infusion of herbs made in *oyl*. But we find his practice in *discussion* run wholly upon *fomentations*: a way perhaps which he thought most proper both to extract the virtue of the plants, and to convey it into the vessels where the tumour is. In *Celsus's* time the *Materia Medica* was much enlarged; and as his chief excellency lay in the *chirurgical* part of his writings, so we see the *outward* applications bear the largest share in them. However, if we look into the *Malagma's*, which he describes for *discussives*,

we shall find a less proportion in them of *oyl*, *fat*, or *wax*, than in our modern receipts. The composition of medicines was still much improved in the time of *Andromachus*, and brought to more perfection in *Galen's*, and even after that, as we may learn from *Ætius*, great additions were made to this part of Pharmacy : yet notwithstanding the ingredients were numerous, they were not altogether inconsistent. For either there were none of those gross substances mixed with the discutients ; as we may remark in most of those described in the *fifth* chapter, and recommended by a good judge, *Leonides*, for the cure of strumous swellings, and which indeed are *Cerotes* chiefly : or if they were put in for the sake of the form, a larger share of warm ingredients was always added to make amends. Upon examination, I believe it wou'd appear, that these rules have not been so well pursued in the succeeding ages ; particularly with re-  
gard



gard to *compound ointments*. Perhaps what *Zwelfer* observes of *Agrippa's* ointment, may be justly applied to most of the others, which are used for *discussing*, that the juices or roots boiled, would do better without the *Wax* or the *Oyl*. And therefore, in most cases where discutient or strengthening ointments are applied now, *Hippocrates* used *fomentations* made of the herbs infused in water. A like simplicity you may meet with in the plaster of *Nechepso*, mentioned by *Ætius*: where the leaves of *Cypress* are only pounded and soaked in the second droppings of new wine: this he commends for an admirable discussive in strumous swellings, and assures us it will cure in *seven* days. He says there is a natural property in this medicine, which makes it a kind of *Specifick* in this case; and therefore adds, that if you would change it, or mix any thing else with

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it, you will do more hurt than good. Indeed in all the compositions for *discussion*, the mixture of glutinous things seems not to contribute to their efficacy, but to their consistence only. And might not this more particularly be said of *Mercurial* ointments and plasters, which perhaps would sooner answer the end of *discussing*, if the *Mercury* were only mixed with a little *Turpentine*, in the manner which you know *Fallopious* used, or with *Lard*, than as is the general practice, with an unreasonable heap of glutinous and mucilaginous substances, which, by clogging the pores, only serve to hinder the *Mercury* in its operation, and in a literal sense to *kill* it. As to the use of *Plasters* in this case of *discussion*, *Galen* excepts against the very form, as being too hard and stiff: and therefore in *Phlegmons*, which are to be *discussed*, he advises *Liniments* only, as less likely to obstruct the pores. Of such a sort of consistence are the *Empla-*  
*stra*

*stra ex succis*, described by *Ætius*<sup>t</sup>, where the juices of the plants are boiled up in *oyl* only. Yet in *oedematous* swellings at least *Plasters* are proper, and may in some sense be said to serve for a *bandage* or compress to force the humours into their usual channels.

THUS we see what are the proper methods which nature, and her best interpreters, point out for *discussion*: and from what has been said upon this head, we may easily form a right notion of *suppuration*: to effect which, we must indeed stop the pores, so as to leave no vent thro' the skin, but at the same time rarefy and attract the humours so, that by the great distention they make, they may burst the vessels; which when extravasated and brought to digestion, appear in the form of *Pus*. And from hence it is, that if we open a tumour too soon, when the matter is crude, we



hinder it from ripening. Therefore all those medicines, which have been mentioned as improper for *discussion*, are the best *suppuratives*; accordingly *Galen* says, they ought to consist of *gross* parts; and the *Tetrapharmacum*, composed of *Pitch*, *Fat*, *Rosin*, and *Wax*, is thought to be the strongest *suppurative* by *Celsus*. So in wounds, the matter is at length brought to digestion by the application of *emplastick* medicines. And as was observed in *discussion*, that extremely viscous things ought not to be admitted, so neither any thing that is very discutient or deterfive, should be mixed in those applications designed only to suppurate; for the reason *Hollerius* gives in this case, because we then open the pores, which should be shut. And there have been too many unfortunate instances, where the intention has been to suppurate, and applications used all the while to discuss. For when the matter is of itself tending to suppuration, any endeavour



deavour, by way of discussion, revulsion or evacuation, does but divert it from coming to a head, and so prolong, if not wholly frustrate, the cure: on the contrary it is plain, that while we are carrying on the design of *Discussion*, we ought to use at the same time all *inward* means of emptying the vessels and removing the obstructions in them, as *Ætius* every where inculcates: for else instead of discussing, we bring the tumour to suppuration. Nature is always simple and uniform; and Art, to succeed well in following her, must always tend to the same point. And certainly, if this part of *Surgery* were set in a more distinct view by those who are masters in that way, and the effects of *outward* applications better adjusted and explained, nothing would give us a greater light into the virtues and operations of *internal* medicines.

SEVERAL other particulars, which occur in *Ætius*, relating to *Surgery* deserve

serve our attention : some passages there are too, which would furnish very good hints with regard to our own profession. I shall for a sample instance in one, wherein is laid down a rule of practice very well worthy of our imitation. The chapter<sup>n</sup>, at least some part of it, is taken from *Herodotus*, and treats of the *ἐξανθήματα* or cuticular eruptions of all sorts, which have a *Feaver* attending them, or follow upon a Feaver, especially those which create an itching, and appear like Fleabites in the skin. In this case, he says, nature is for the most part overloaded with redundant and vitiated juices : which, unless they are carried off by some evacuations, either by *vomit* or *stool*, are apt to fall upon the vital parts, and to prove dangerous. In the beginning therefore, if the feaver is strong, the first thing he advises to be done, is to *let blood*. I don't question

but it was a vulgar notion then, as it is now, that an *eruption* upon the skin forbids such a practice : and the reason commonly assigned, is the fear that the humour may retreat from the circumference to the centre. But it were easy to shew, from the rules of the animal oeconomy, how false a way of reasoning this is ; and how in many cases, where the blood abounds, or is very viscous, lessening the quantity will attenuate its particles, and give them a greater freedom to circulate : so that by this means the *eruption*, instead of being checked, advances in a kindlier manner. Therefore in an *Erysipelas*, *Small Pox*, *Measles*, *Scarlet Fever*, &c. if the symptoms run high, and affect the head, the lungs, or any other part, so as to give intense pain, *bleeding* will be found a very rational and safe practice. And in fact, tho' I have tried no experiment more frequently, I never once observed that any of these *eruptions* struck in upon *bleeding*, when the disease

ease



ease required that treatment. In inflammatory cases, and in an *Erysipelas* particularly, it is often seen by experience, that *scarifying* upon the part, when the membranes are loaded and thicken'd, will remove the inflammation in a very sudden and surprizing manner.

*Ætius* was a native of *Amida* in *Mesopotamia*, studied at *Alexandria*, and was probably a *Christian*<sup>x</sup>, which perhaps may be the reason, why many have confounded him with another of that name, a famous *Arrian* of *Antioch*, who lived in the time of *Julian*. In some manuscripts he has the style of *Κόμης Οψωνίας*<sup>y</sup>, *Comes Obsequii*, i. e. the chief Officer of those, who used to go before the Emperor, as his attendance and Harbingers. We find in him several particularities relating to the *Ægyptian* Pharmacy. He has collected a great multitude of receipts, particularly those, which had been

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<sup>x</sup> A Deo missum, Dei munus, 4, 3, 14.  
Cæsar. 6. 102.

<sup>y</sup> Bibl.

much celebrated or used as *Nostrums* by their Inventors. Some of these he seems to mention with no other design, than to expose them, and to let us see the extravagant rate people were induced to pay for them : for instance, the *Collyrium* of *Danaus*<sup>z</sup>, which was sold in *Constantinople* for one hundred and twenty *Numismata*, and with great difficulty obtained from him : The *Colical Antidote* of *Nicostratus*, called very presumptuously *Isotheos*, bought for *two talents*. It seems, I say, to have been his design to shew us, how little there is in such receipts, when they are once made publick, whatever pompous titles they might bear, or how much soever they might be in vogue : and therefore he gives them no character himself, nor recommends them from his own experience, as he does very deservedly the *Philonium*<sup>b</sup>. It was enough, he thought, to make a

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<sup>z</sup> 2. 3. 98.
<sup>a</sup> 351. 32.<sup>b</sup> *ibid.*

bare recital of them, as instances perhaps of the knavery in those who sold them, and of the foolish credulity in those who bought them. A man who has the least acquaintance with Physick must be sensible, that any *universal* remedy must be a cheat; and tho' it be never so good and valuable a medicine in itself, yet it is utterly impossible it can be equally applicable to all persons, in all cases, and at all junctures; and therefore it must be determined by the skill of some discerning Physician, who is well apprised of the nature and symptoms of the disease, where to give it and where to forbear. We need not go far for a proof of this: we have a convincing one in that great, and perhaps the *only Specifick*, the *Bark*: which if used indifferently, and without judgement, even in *intermitting* cases, has a chance to do as much hurt as good.

*Ætius* seems to be the first *Greek* writer in Physick among the *Christians*, as  
far



far as I can recollect, who gives us any specimen of medicinal spells and charms, so much in vogue with the old *Ægyptians*, such as that of St. *Blasius*<sup>c</sup>, in removing a bone which sticks in the throat, and another in relation to a *Fistula*<sup>d</sup>.

THE division of the *sixteen* books of *Ætius* into four τετραβιβλοι was certainly not made by himself, as *Fabricius* observes, but was the invention of some modern; for the way of quoting him, used not only by himself, but by *Photius*, is according to the numerical series of the books. Tho' I find in one place the translator uses the word *Quaternionibus*<sup>e</sup>, which slip'd in there I believe through inadvertency.

I shall take my leave of this author with giving you a sample of a remedy for the *Gout*, both because it is somewhat extraordinary, and the first in its

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<sup>c</sup> 2, 4, 50.

<sup>d</sup> 4, 3, 14.

<sup>e</sup> 4. 1. 119.

kind I believe in the history of Physick. It is an external medicine: he calls it the *Grand Dryer*<sup>f</sup>: the patient is to use it for a whole year, and observe this diet besides in each month. He calls the months by the *Alexandrian*, or *Ægyptian* names; but in *English*, the direction runs thus. “ In *September*, to eat  
 “ and drink milk: In *October*, to eat  
 “ garlick: in *November*, to abstain from  
 “ bathing: in *December*, not to eat cabbage: in *January*, to take a glass of  
 “ pure wine in the morning: in *February*, to eat no bete: in *March*, to  
 “ mix sweet things both in eatables and  
 “ drinkables: in *April*, not to eat horseradish; nor in *May*, the fish called  
 “ *Polypus*: in *June*, to drink cold water in a morning: in *July* to avoid  
 “ venery; and lastly in *August*, to eat  
 “ no mallows.” This may give us some idea of the quackery of those times;

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<sup>f</sup> 3, 4, 48.

and yet there is a more extravagant *g* *Antidote* than this in *Alexander* for the same distemper; which must be used too for a *twelve-month* with the following regulation. “ To be given in *January*,  
 “ *February*, *March*, and *April*, *five* days  
 “ in each month alternately; in *May*,  
 “ *three*, and in *June*, *two* alternately:  
 “ in *July*, *August*, and *September*, each  
 “ *one* day; in *October* and *November*,  
 “ each *two* days, and in *December*, *four*  
 “ alternately.” So that there are *thirty-six* doses in the year. At the same time the patient must abstain from wine, swines-flesh, beef, hare, cabbage, mustard, milk, &c. He has another too consisting of three hundred and sixty five Potions, and this must be taken so as to furnish out a course for *two* years. And I dare say, whoever will have patience to go through such a regimen, for so long a time together, and intire-

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ly conform himself to these strict rules, will complain less of the *Gout*, than we find they do in our modern times.

However *Alexander* is an author of a quite different stamp, and, as Mr. *le Clerc* himself owns, has more the air of an original writer ; and such certainly he is : for he has for the most part a language and a method, if we compare him with *Galen*, or the copiers we have named, peculiar to himself. And when he follows the ancients in describing the symptoms, or the cure of distempers, as no doubt he, and every one else must or should do at least, when they write a System of Physick, it is still in his own way, and in his own phrase. His stile indeed in the main, is very good, short, clear, and to use his own term, consisting of common expressions : and though through a mixture of some foreign words, occasion'd perhaps by his travels, not always perfectly elegant, yet very expressive and intelligible. The  
others

others range distempers in a very confused manner ; he takes them as they lie in order, literally from head to foot. He is the only *Greek* writer, who is as methodical, tho' in a different way, as *Aræteus* : and these *two*, whom I look upon as the most valuable authors since *Hippocrates*, agree in another thing, that they treat of but few distempers, not above *fifty* or *sixty*. And which therefore may be supposed to have come oftner within the reach of their own observation. For if they had transcribed out of others only, why should not their works have been as voluminous, as those of *Oribasius* and *Ætius* ? One thing I am surprized at, that *Alexander* does not treat of any disorders incident to *Women*. He is accurate enough in explaining the causes of diseases, and the intentions he lays down for the cure, are very judicious. In the *Diagnostick* part he is excellent, and very exact in distinguishing distempers, which have a near resemblance



blance to one another ; as a *Pleurisy*<sup>b</sup>, from an inflammation of the *liver* ; the *stone*<sup>i</sup> from the *colick* ; *hectical* feavers<sup>k</sup> from *quotidians* and others. We may at first view discern, how deficient *Oribasius* and *Ætius* are in this point. He gives us the history of *two* cases with his method of proceeding, in a *Tertian*<sup>l</sup>, and *Scirrhus*<sup>m</sup> of the *Spleen* : which, except what we read in *Hippocrates* and *Galen*, and those not so particularly stated, are the only examples of this kind in antiquity.

He is very punctual in relating the compositions of medicines, and in mentioning the time, and way of giving them : among these there are several of his own. Indeed to speak the truth, there is so much choice of medicines in him, that there are rather too many, than too few. But he seems to be a strong believer in the force of all his

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<sup>b</sup> 6, 1.   <sup>i</sup> 9, 4.   <sup>k</sup> 12, 4.   <sup>l</sup> 12, 6.   <sup>m</sup> 8, 10.



drugs. There is another foible too, which I must not forget, his *superstition*, and the faith he has in *Charms* and *Amulets*, much beyond what one would expect from a man of his good judgment. He endeavours to give some reasons for it<sup>n</sup>, and pleads the *precedent* of *Galen*; there are several instances of his being addicted to *Magick*; and he is the only Physician, perhaps, who ever quoted *Ostanes*, one of the oldest of the *Persian Magi*. However, whether this proceeded from the humour of the times, or the weakness of old age, the credulity should be overlooked. I shall just take notice, that he mentions these sort of remedies only in *Agues*, *Stone*, *Colick*, and *Gout*: and I think it has been the fashion almost ever since, that the use of these *magical* applications has chiefly prevailed in those distempers. As good a one as any of the rest<sup>o</sup>, is the verse in *Homer*,

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<sup>n</sup> 1, 15, 9, 4.

<sup>o</sup> 11.

Τέλρῃχει δ' ἀγορή, ὑπὸ δ' ἐσοναχίζετο γαῖα.

And is never the Worfe for being the Cheapeft.

In other matters, whatever regard he pays to the ancients, he is very free in giving his own opinion, and expreffing his difsent from them <sup>p</sup>, when he thinks he has reason on his fide: particularly, he very often difagrees with *Galen* <sup>q</sup>, and fometimes wonders, he fhould lay down doctrines fo very confufed, and indiftinct <sup>r</sup>; and advifes a different manner of cure <sup>s</sup>, not out of any defire he fays, to contradict him, but only for the fake of fetting every thing in its true light. And in general I muft obferve this, that he not only very diftinctly explains the whole method of cure in each diftemper, but ufually gives his reader a caution, what he fhould avoid doing <sup>t</sup>: a direction, which, if all other writers had as exactly followed it, might have been

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<sup>p</sup> 1, 17, 7, 13, 9, 3. <sup>q</sup> 6, 1, 12, 1, 6. <sup>r</sup> 12, 1, 6, 7, 8.  
12. 6. <sup>t</sup> 3, 7, 4. 1, 3, 10, 13. 12. 7.

of as much use to us, as many of their positive Precepts.

There is another thing too, which distinguishes the character of *Alexander* from the foregoing writers, that he confines himself directly to the describing the signs of diseases, and the method of cure, without meddling either with *Anatomy*, the *Materia Medica*, or *Surgery*, as the others have done: however we find, that he wrote, or did intend to write, a book upon *Fractures*<sup>u</sup>, and had written another piece concerning distempers of the *Eyes*<sup>v</sup>.

He employs a whole book<sup>y</sup> in treating of the *Gout*, of which *Galen* says little or nothing: which may incline us to think, it was a more prevailing distemper in this time. One and the chief method he takes in relieving this Disease, is by *purging*: and in most of the purges he recommends, *Hermoda-*

<sup>u</sup> I, 14.

<sup>v</sup> 2, 1.

<sup>y</sup> II.



*Etyls* (of which he has a great opinion, and which *Oribasius* and *Ætius* but just mention) are the main ingredients. You see how far from a modern invention it is, as is fondly imagin'd, to endeavour curing the Gout by *purging*: a distemper perhaps, after all, which it were better not to tamper with, notwithstanding all these good receipts, which *Alexander* has left us; as good at least, as any of those, which our new Pretenders to Physick have made use of.

I have been somewhat longer, in order to shew, that there appears enough in this book to give him the Merit of an *Original* writer. He was born at *Tralles*, a famous city of *Lydia*; where the *Greek* language was spoken in great perfection, because of its neighbourhood to the *Ionians*: he had the advantage of being bred up, not only under his father *Stephanus*<sup>z</sup>, a Physician; but un-

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<sup>z</sup> Lib. 4.

der the father of *Cosmas*, and therefore he wrote this work out of gratitude, at the desire of the son. He was a man of an extensive practice, of a very long experience, and of great reputation, not only at *Rome*, but wherever he travelled in *Spain*, *France*, &c. whence he was called by way of eminence, *Alexander the Physician*. And this is the reason he is often fuller and more exact in the *Therapeutick* part, than were those who went before him : because he collected those remedies chiefly, which he had found by repeated observations to be the most effectual, as he tells us in many places, and expressly in his Preface to the 12th Book, which treats first in general of *Feavers*, and then of the several species of them : and which whoever reads may be convinc'd, that it ought to be placed before the other *eleven*; especially when he says himself, at the latter end of the *Eleventh*, that there he shall conclude this Work.

Having

Having given some account in general of this Writer, which perhaps may recommend him to our perusal at least, I shall cursorily touch upon some of the most remarkable passages relating to *Practice*, either not mentioned, or not much explained by others; and in this I shall follow him in his own method.

In a *Causus*<sup>a</sup>, or what he calls a *spurious burning Fever*, where the Bile is predominant, the Matter fit for evacuation, and the Fever not violent, he rather prefers *purging* to *bleeding*; which last others chiefly rely upon. And adds this pertinent and judicious remark, “ I remember, says he, I have ordered  
 “ *purging* even in *acute* Fevers; but  
 “ such a practice requires not only  
 “ much attention, and exquisite dis-  
 “ cernment, but a Physician, who is  
 “ capable of having courage and pre-  
 “ sence of mind.” Those who reason upon whatever falls within their ex-

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<sup>a</sup> 12, 3.



perience, will easily perceive the force of this observation: and I believe will own, that in some cases, this method, when pursued with judgment, is attended with surprizing success. For often this may be the most proper way of following, or assisting nature: *Oribasius* has a chapter (from *Archigenes*) upon this head<sup>b</sup>, and *Galen* well observes, that one of the natural means of bringing this distemper to a crisis is by a *Looseness*<sup>c</sup>. What *Alexander* further observes, in giving *gentle* (for he by no means advises *violent*) *purges* in a *Tertian* and *Quotidian*, deserves a serious reflexion, and shews him to be a careful, as well as a sensible Practitioner.

In the same Distemper (a *Causus*) if a *Syncope* happens, from crude and redundant humours, he recommends *bleeding*: which I the rather take notice of, because he had scarce any

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<sup>b</sup> Collect. 8. 46.

<sup>c</sup> De Cris. 3. 3.

precedent to follow, except *Aretæus*<sup>d</sup>, who gives the same advice in the like case. Indeed as to a *Syncope* in general, the *Practical* Writers, even among the moderns, are almost universally silent upon this point of *bleeding*; at least the few, who do mention it, declare their opinion against it. Scarce any, besides *Sennertus* and his Copier *Riverius*, allow it: and the latter speaks of it in a very transient manner, and as practicable in *two* cases only, that of plenitude and that of a fright. We may perhaps the less wonder at this extraordinary caution, if we consider what some of the ancients have said upon this head. *Ætius*<sup>e</sup> and *Oribasius*<sup>f</sup> are afraid of it, even in the case of plenitude; and *C. Aurelianus* lays it down as a general rule, *Phlebotomiam nihil jugulatione differre ratio testatur*<sup>g</sup>. But we shall find another account of this matter, if we go higher up to the Foun-

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<sup>d</sup> Car. Acut. 2. 3.

<sup>e</sup> 2. 1. 96.

<sup>f</sup> Synops. 7. 26.

<sup>g</sup> 2. Acut. 38.

tain of Physick. *Hippocrates*, or some one of his disciples, says expressly in his observations upon acute diseases, that when any one is taken *Speechless* of a sudden, it arises from an obstruction or interception of the Veins, *ἢν ὑγαινοῖτε τὸδε ξυμβῇ αἶεν προφάσι*.<sup>b</sup> *if it happens in a perfect state of health, without any evident cause*; and therefore pronounces *bleeding* in the arm necessary. *Galen*, who knew the sense of *Hippocrates* best, interprets the word *Αφρων* to include not only an *Apoplexy* but a *Syncope*; and in both these cases so earnestly recommends *bleeding*, that he says, several have been killed by a different method<sup>i</sup>. The condition assigned in the Aphorism (tho' not at all considered in this view by any of the interpreters) is very well weigh'd and very expressive, *if it happens in a perfect state of health, and without any evident cause*: for under this limitation

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<sup>b</sup> *Vict. Acut.* 4. 23.

<sup>i</sup> *Meth. Med.* 12.



it is scarce to be supposed, that a *Syncope* can arise, but from some fault in the blood, which creates a greater resistance in its passage thorough the heart, and which nothing can take off so soon as *bleeding*. *Riolan*<sup>k</sup> remarks, that this sort of *Syncope*, which proceeds from fullness, is familiar to the *Germans*, who are apt to be very gross; and he reflects upon them for their negligence in not curing it by letting blood. And we frequently observe in Practice, that upon a stoppage of any usual evacuation, as bleeding at the *Nose*, *Hæmorrhoids*, &c. a *Syncope* succeeds. *P. Salius*<sup>l</sup> among the moderns is the only one, who has well considered this case, tho' not with those restrictions, which *Hippocrates* lays down; and he very justly takes notice, that it is one, which has never been treated of by the practical Writers. He gives *two* or *three* instances of it from his own

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<sup>k</sup> Enchirid. Anatom. 3. §.

<sup>l</sup> De Affect. partic. 4.

experience, which are well worth reading : and he observes, that this sort of *Syncope* generally gives a days warning or two, either by some sense of Suffocation ; or an intermitting *Pulse* : that he has prevented the fits by *bleeding*, and recommends this and frictions for the cure of it, which is exactly the doctrine of *Alexander* : that he foretold the danger to several others, who neglecting his advice, died suddenly : and he adds too, that upon *dissection*, the blood was found to be so coagulated, that one might draw it out of the Veins, as if it had been a solid body. In this case, no doubt *bleeding* is highly necessary ; and we may easily conceive, that if this application does not give relief, no other can. This was the Practice of *Alexander* ; and the *Diagnosticks* he founds it upon are very plain and distinct, *viz.* a face paler and more swelled than usual, a bloated habit of body, with a pulse little, sluggish, and having long intervals between the strokes.

strokes. Strong indications for such a method of cure.

In *Tertians*<sup>m</sup>, and much more in *Quartans*<sup>n</sup>, he recommends *vomits* above all other applications, before the fit: and of the latter, he has cured the most inveterate by this remedy alone. A Practice mentioned indeed, tho' little insisted upon by the rest of the ancients; but surely very consonant to nature, and of great advantage, not only in this, but in most other *chronical* cases. The *Antidote* here describ'd, very *wonderful* he calls it, is indeed a little too much resembling a Quack's bill: it is a *Catholicon* somewhat like *Mithridate*, and cures it seems not only this, but about *thirty* other distempers, which he recites. The good old man says, the person who gave this to him, did most solemnly affirm, there was no medicine that could be compared with it, for its excellent vir-

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<sup>m</sup> 12, 6.

<sup>n</sup> 12, 7.



tues. He not only sets forth all these virtues, but describes the preparation at large : and as it was communicated to him, he very honestly, in his turn, imparts it to the World : We find the same fair dealing in him in many other instances. I have very often admired the great integrity of the ancients, that, however credulous they sometimes were, in imagining a more than ordinary force in what they called *Specificks*, and magnified them beyond what they deserved, yet they never made any *Secrets* of them. They took pains to be thoroughly acquainted with their own Art, and by that means were led into a sense of the *general* Good it was designed for : and therefore being above any views of little private interest, and acting up to the character of their Profession, whatever they could find out by their own experience, or collect from the observations of others, which might relieve the distempers incident to their fellow-

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creatures,

creatures, they freely and generously made it publick. This was the Practice of the *Ancients*; and ought be a perpetual model for their Successors, who would imitate them either in their Knowledge or their Virtues.

A *Phrensy*<sup>o</sup> is very accurately described by him, and he gives good reasons, why it does not arise from a disorder of the *Diaphragm* as some imagined, but from that of the *Brain* itself. When he could not easily command a vein in the arm, he open'd that in the forehead; a practice, which *Rhazes* after him recommends. Tho' he advises *Diacodium* in obstinate *Phrensies*, yet he gives very proper cautions about it: and if the patient be of a phlegmatick constitution, the *Phrensy* not very outrageous, and the body weak, he dissuades the use of it. For then *Opiates* are hurtful, and sometimes mortal. He repeats much

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much the same cautions in the case of a *Pleurisy*, and *Cough*. If we compare what he says of a *Phrensy*, and *Pleurisy*, with *Oribasius* and *Ætius*, we shall see how much more satisfactory an account he gives of these *two* distempers. For *Paulus*, in both these articles, does little else than transcribe our author.

He uses *blistering* Medicines, as in a *Lethargy*<sup>p</sup>, *Squills*; in an *Epilepsy*<sup>q</sup>, *Lepidium*; and in the *Gout*<sup>r</sup> particularly, a great many others, as *Garlick*, *Euphorbium*, *Mustard*, &c. and among the rest *Cantharides*: which last, he says, by discharging a large quantity of Serum, give immediate relief. But he adds a very proper hint, not to rely upon these *topical* applications only.

For the cure of a *Palsy*<sup>s</sup>, he recommends a new sort of *Hiera*, and that a very good one, which he describes. He advises not to add any more *Scammony*

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<sup>p</sup> 1, 14.

<sup>q</sup> 1, 15.

<sup>r</sup> 11.

<sup>s</sup> 1, 16.



to it afterwards : and makes this observation, which I meet with no where else, and which may be made very good use of in practice, if well attended to.

“ For many (says he) do so, thinking  
 “ to increase the force of the medicine,  
 “ and not knowing that by this means  
 “ they make it useless. For it is not  
 “ the intention, that the medicine should  
 “ be carried immediately through the  
 “ bowels, but that it should be detain-  
 “ ed in the body, and be conveyed in-  
 “ to the remote parts, and there atte-  
 “ nuate and correct the humours, open  
 “ the passages, remove the obstructions  
 “ of the nerves, and make way for the  
 “ motion of the spirits.” And this  
 chiefly in a *phlegmatick* constitution. It  
 would be easy to shew, what excellent  
 good sense there is in this doctrine, and  
 of how extensive an use the reflection  
 he makes may be to us in regard to slow  
*purges*, in some *chronical* Distempers.  
 And daily experience convinces us, that

it is an admirable rule in practice, especially when we order *mineral Waters*, (as those of the *Bath*) and *Calomel* in several cases. So too in a *Colick*, and *Iliaca passio*, the overbrisk and purgent purgatives do often but heighten the disease, and perhaps endanger an inflammation, (as he himself elsewhere observes) unless they are prudently blunted and retarded by *Opiates*.

The different sorts of *Melancholly*<sup>t</sup> are well described: the force of imagination painted in lively colours; and many apposite instances given, much in the same manner, as *Aretæus* represents them. He cures these by diet, bathing, and amusements, rather than by much medicine: and disagrees with the ancients in ordering so frequently *Cupping*, *Leeches*, and *Sinapisms*. And even as to purges, though *white Hellebore* be much cried up by them, he prefers the *Armenian Stone*, which purges very safely and

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<sup>t</sup> 1. 17.

effectually, without any ill consequences or danger, which the other rough medicine too often occasions. The opinion which *Alexander* here expresses of the *white Hellebore*, agrees with what the history of those times informs us of, that this medicine so famous among the ancients had grown into utter disuse, 'till *Asclepiodotus*<sup>u</sup>, a man well versed in Physick as well as *Mathematicks* and Musick, revived it about the year 500, and did many wonderful cures with it in the most obstinate diseases. However we see the practice was not approved of by our Author, who flourished not long after him.

He lays down a very good rule in relation to a *Parotis*<sup>x</sup>, (*i. e.*) at first to be sure to *bleed*, before any discussing or drawing applications be made: that those who have been forward in doing this without *bleeding*, have been the

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<sup>u</sup> Photii Biblioth. 560.

<sup>x</sup> 3, 7.



instruments of strangling their patients. And upon the same principle he very justly explodes the use of strong repellers and astringents, such as *Solanum*, *Alum*, &c. He describes the medicines, which are proper to make these *Parotids* yield to discussion: an application, which ought always to be attempted, where the case is capable of being cur'd by it, rather than suppuration. But if upon this, the tumour does not in the least subside, and the pain continues, all endeavours, he says, should be used to bring it to suppurate; and 'tis a sign that matter is making, if a *Rigor* and *Fever*, which were not before, come on unexpectedly, and the *pain* encreases. And in this he agrees in the main with *Celsus*, who gives us a very good distinction to guide our practice in this point: which is, when the swelling comes originally of it self, without any other distemper, to try moderate repellents first and discutients; but where it attends or

lows upon another disease, as no case is more frequent, it must then be brought to maturation, and opened as soon as possible. For in this case the swelling is *Critical*, and solves the distemper. And *Hippocrates* pronounces those *Parotids*, which succeed long Feavers, mortal, unless they *suppurate*. When these are obstinate, and can't be ripen'd by external applications, there have been instances, where burning has brought them to suppuration. And *Severinus*, and *Vallesius* before him, have given us an account, how they have try'd this practice in malignant *Parotids* with success.

The method prescrib'd in a *Quincy* is perfectly right; he allows repellers only at the very beginning, and entirely forbids every thing which relaxes. He very much commends, as also does *Aretæus*, the antidote *διαβρωσού*, so called from *wild Rue*, one of its chief ingre-

dients, and describes the composition. *Bleeding* in his opinion is, above all things, necessary; and that *three* or *four* times, as occasion requires, only we ought to take care not to bleed *ad deliquium*. If there follows no alteration upon this, the veins under the tongue shou'd be cut; tho' *C. Aurelianus* condemns this method as superstitious: and that not to be defer'd, 'till the next day (as *Ætius* advises in bleeding) but to be done the very same day. “ I have often, says  
 “ he, when the case was urgent, open-  
 “ ed a vein in the morning, in the  
 “ evening cut the *Ranula*, and at night  
 “ given a purge: and yet with all this,  
 “ found great difficulty in removing  
 “ the obstruction. I have, after blee-  
 “ ding in both the arms, ordered a  
 “ purge immediately, without waiting  
 “ 'till the next day. And this must be  
 “ done, when the danger is pressing,  
 “ and admits no delay. I have open-  
 “ ed the *Jugulars* with great success:  
 “ like-



“ likewise the *Saphæna* in Women, when  
 “ the *Menses* were suppressed: with this  
 “ double advantage, the bringing down  
 “ the *Menses*, and taking off the swell-  
 “ of the throat.” You see he talks here,  
 as indeed he does almost every where  
 else, like a master in practice: and ’tis  
 but doing him justice to observe, that  
 this method is extremely rational and  
 just; and that, after all our discoveries  
 and improvements in Physick, scarce any  
 thing can be added to it.

He mentions a *Tubercle* in the Lungs<sup>z</sup>,  
 which occasions a difficulty of breathing,  
 but is not attended with any Expector-  
 ration or Fever: a distemper taken no-  
 tice of by *Galen*<sup>a</sup>, and a common spe-  
 cies of consumptions amongst us, espe-  
 cially in scrophulous bodies: and which,  
 tho’ slower in its progress than a true  
*Phthisis*, where a consuming *Hectick* fol-  
 lows upon an *Ulcer* in the Lungs, sel-

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<sup>z</sup> 5, 3.

<sup>a</sup> Loc. Affect. 4, 6, 7.

dom fails to end in a hoarseness and atrophy, and to prove at last as mortal as that.

He relates a case, which seem'd to him very wonderful and unheard of, the coughing up a *Stone*<sup>b</sup>: a real stone, not a viscous concretion; smooth and hard, and making a noise, if dropt upon the ground. Of such *Stones* cough'd up I have seen several, and some as big as a Filbert; where no signs of a Consumption appear'd; only there continued an inveterate cough. One I know who has brought up four or five such, at long distances of time: the person, whom he mentions, had labour'd with a cough a great while, and had no relief, 'till the stone came up. He was of a thin habit naturally, and greatly emaciated by the disease: and wou'd probably, he says, have died tabid, if a moistning and cooling method had not been pursued,

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<sup>b</sup> 5, 4.

in order to bring up this hard substance. And here he makes a very severe, but a very just reflection upon the practice of *Galen*; who observes indeed some tough matter spit up like hail, tho' nothing like a stone<sup>c</sup>: and in such a case only advises warm and drying remedies, viz. *Mithridate* and *Treacle*, &c. leaving this remark, that none of them recovered. *Alexander* makes no scruple to speak out very plainly, that the method was entirely wrong: and that he would not have expressed his thoughts so freely of so understanding a man, but that the love of truth had forced him, and he looked upon it, in this case, as a sin to be silent: and ends with the famous saying of *Aristotle*, *Plato is my friend, but truth much more*. Very different is this frankness from some admirers of *Galen*, who with *Massarias*, an eminent *Italian* professor, had rather err

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<sup>c</sup> Loc. Affect. 4, 6.



with him, than be in the right with any body else.

The remark he makes, in treating of a *Pleurisy*<sup>d</sup>, concerning liquids is worth observing; and is a proof, that it was made by one, who very well understood both the nature of the animal fluids, and the force of medicines. “ Moisture, says he (from *Hippocrates*) is the vehicle of the aliment. Therefore don’t fail to give *Ἐυκαίον*, or Water *milk*-warm, with other liquors and food. For there is no dry medicine, destitute of all moisture, which can penetrate to any depth, but must rest upon the surface, in a state of inaction: but when something humid is join’d with it, then it insinuates itself, and imparts coolness and heat. Therefore though water be not look’d upon by some to be any nourishment, because ’tis a simple body,

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<sup>d</sup> 6, 1.

“ yet this alone is the means of nou-  
 “ rishing every thing, conveys the ali-  
 “ ment into the body, and unites the  
 “ divided particles. For if this joins  
 “ together the dry and disunited parts  
 “ of the earth, and gives it a continui-  
 “ ty, so as different vessels may be for-  
 “ med out of it : if it makes the very  
 “ bread we eat, and if it is the main  
 “ instrument of generation both in the  
 “ animal, and the vegetable World, it  
 “ is highly reasonable to think, that it  
 “ performs the same offices in the hu-  
 “ mane body.” This observation, well  
 applied, is of great consequence and ex-  
 tent in practice, especially in acute ca-  
 ses ; and whoever reads carefully *Hippo-*  
*crates’s* books concerning the diet in  
*acute* distempers (one of the most valu-  
 able remains of antiquity, and which  
 many long treatises upon *Fevers* have  
 been spun out of) will apprehend, what  
 great effects *Dilution* alone may have in  
 the most dangerous diseases, even almost  
 with-



without any help from medicine. Accordingly we find, that the very *first* principle *Alexander* goes upon in laying down the cure of *Feavers*<sup>e</sup>, is to do every thing which may encrease humidity; and therefore his Practice in all these acute cases, chiefly consists in *Coolers* and *Diluters*, such as *Ptisan*, *Hydromel*, &c. so much, that tho' *Attenuants* contribute much to the same end, yet he is very cautious in giving any, which are *warm*, and finds fault with *Galen* for advising such a method. One thing more I must here remark in him, that when he does think it proper to allow of these *warm* simples, he orders them in a *Decoction* made with *water*, and scarce ever in substance; a Practice, which is not only consistent with his own notions, but surely founded upon very good reason.



In *spitting* of blood<sup>f</sup>, he observes, that sometimes he let blood in the *ankle*; which he found answer'd better than bleeding in the arm. And he gives this reason for it, that the drawing the *matter* towards the more remote parts, makes the revulsion the stronger: a reason as well expressed, and as good as any we now can give, even since the discovery of the circulation.

The observation he makes upon a Βέλινος<sup>g</sup> or immoderate hunger, is intirely new, and his own; there appearing no hint of this kind in the other authors: that it is caused sometimes by *Worms*. He mentions the case of a Woman, who laboured under this ravenous appetite, and had a perpetual gnawing at her stomach, and pain in her head: after taking *Hiera*, she voided a *worm* above a dozen cubits long, and was intirely eas'd of her complaints.

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<sup>f</sup> 7, 1.

<sup>g</sup> 7, 4.

A Case we meet with in Practice very often.

There is something new too in what he remarks, however it be a trifle, about a *Hiccough*, tho' a familiar custom now amongst us; that any surprize, or intenseness of thought (as counting of money, &c.) will immediately remove it.

He recommends in some cases for a *Cholera*, pure *Wine*<sup>b</sup>: and it is very remarkable, that in most distempers he has a separate article concerning *Wine*; and he is very particular in the choice of it, according as its different qualities suit the case of the sick person.

In a weakness of the Liver and a *Dysentery*, he takes notice of *Rhubarb*: a Plant, if I mistake not, first mentioned by this author; tho' Mr. *le Clerc* tells us, that the *Arabians* introduced the use of it. The *Arabians* indeed in transla-

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<sup>b</sup> 7. 14.

ting *Diascorides* and the *Greek* Physicians, confound this root with the *Rha-Ponticum*, and ascribe the virtues, which the ancients have observed in this latter, to what is properly the *Rhabarbarum*: as may be evident to any who will look into the description, which *Rhazes* gives of it. And I believe *Alexander* himself, 'tho' tis plain *Rhubarb* was known in his time, was in the same mistake; for he mentions it only as an astringent, as the elder *Greeks* describe the *Rha-Ponticum*, without the least hint of its *purging* virtue. *Paulus* seems to be the *first* who takes any notice of the *purging* <sup>i</sup>faculty in the *Rheum*, (he calls it simply so) and tells us, how we may make some *laxative* medicines stronger, by the addition of this. And *P. Alpinus* says that some have observed, that even the *Rha-Ponticum* would sometimes *purge*, tho' in a less degree than *Rhubarb* <sup>k</sup>. The modern

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<sup>i</sup> 1. 43.

<sup>k</sup> Plant. Exot. 2. 5.



Greeks gave this root the name of *Barbaricum*, not from the place of its growth, but from the place it was imported to; for the country in the upper *Æthiopia* was call'd *Barbaria*, as *Salmasius*<sup>m</sup> well observes, from its lying upon the *Sinus Barbaricus*, in which were many great emporiums, particularly *Rhapta*, the metropolis of this region. This Gulf, upon the East, joins with the *Indian Ocean*; and therefore *Actuarius*, and after him, *Myrepsus*, calls this plant *Ρέον Ινδινον*. No doubt, in those times it was imported this way to *Alexandria*, and so might be known to these latter *Greek Physicians*. However, I must observe, that *Salmasius* does not take notice of *Alexander's* mentioning *Rhubarb*: but quotes *Paulus* for it, who does not mention it: but only in general speaks of and describes the *Rha*. *Garcia ab Horto*, Physician to the *Spanish Viceroy*, tells us, he had learn't

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<sup>m</sup> Plin. exercit. 798.

in *India*, that all the *Rhubarb* which was imported thither, and into *Persia*, grew in *China*: that it was brought thither both by sea and land; but that the latter way of bringing it over *Tartary* to *Ormuz* was much the best, for by sea-carriage 'twas more subject to rot.

In the *Dysentery*<sup>n</sup>, which he calls *rheumatical*, he orders *bleeding* to two *Hemina*'s. He very justly condemns the rash and undistinguishing Practice of some, who immediately throw in *opiates*; for these do but bind up the humours for a time, affect the head and the strength, and occasion a more violent return of the flux afterwards. Therefore he thinks they ought not to be used, but in case of necessity. He takes notice, that in a true *Dysentery*, where there is an exulceration, matter is very often taken for slime; and I believe we often meet with mistakes, which are quite the

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reverse, of slime being taken for matter.

In a *Schirrus* of the *Spleen*°, he speaks much of the virtues of *Steel*. He recommends it in infusion, and even in substance: and this, as it seems to be the first instance of the practice, may serve for a full answer to them, who would pretend that the medicinal qualities of this metal were first found out by *Chymical* methods. It is certain indeed, that there is no mention of it in *Hippocrates*, tho' he reckons up most of the simple medicines we now have. *Pliny* in relating all the medicinal qualities of *Steel*, mentions but one way of using it inwardly, and that is, quenching hot iron in water for a *Dysentery*: *Diascorides* quenches it in wine too for the like purpose. The same way of using it we read in *Celsus*, for hindering the spleen from growing too big. *Ætius* and Ori-

° 8. 13.



*basius* mention indeed *Steel* properly so called, *σύνωμα ferri*, but only as an *outward* medicine in the cure of malignant Ulcers. So if we look into the writers that succeed those times, we shall find this metal but rarely used; and when it was, either inwardly or outwardly, scarce under any other notion than that of an astringent. Nay *Avicenna* is so afraid of its being pernicious, if used in substance, that he advises the taking a load-stone after it, to prevent any ill consequence: tho' his own countryman *Rhazes* often recommends this way of using it, and mentions the several forms he gives it in. Since him, I do not know, whether any body speaks of it as an inward *deobstruent* before *Monardes*, who wrote about the same time that *Anatomy* came to be in vogue: which as it gave a greater light and certainty into the true cause of these distempers, so it introduced some more effectual ways of removing them. And surely we  
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can no where have a more convincing argument than in the present case, of what great service and assistance *Anatomy* may be of to the Practice of Physick. For what other reasoning could induce men to use *Steel* in a *Schirrus* of the Spleen, or Liver, than an ocular demonstration from dissections, that the cause was from an obstruction : from which matter of fact 'twas easy to infer, that whatever is most forcible in removing the obstruction, would be the properest instrument of the cure. Such is the remedy we just now mentioned, which besides the attenuating power it is furnished with, has still a greater force in this case from the gravity of its particles, which, being *seven* times specifically heavier than any vegetable, acts in proportion with a stronger impulse, and by that means is a more powerful deobstruent. Any one who peruses the Works of modern Physicians, or has ever been conversant in practice himself,



will easily be satisfied, what great cures may be done in several chronical distempers, not only by *Chalybeate Waters*, but by a course of *Chalybeate Medicines*; and those who would persuade us, that this metal has no *alterative* virtue in it, must have had the misfortune to have learn't as little from other peoples experience, as their own.

*Bleeding* in a fit of the *Stone<sup>p</sup>*, is no where so much insisted upon, as here. The Practice is certainly very judicious: especially if there be at the same time, as there generally is, a suppression of urine. For our experience tells us, that sometimes letting of blood will remove that obstinate disorder, not only when nothing else will, but without the help of any thing else.

I have mentioned what he says of the *Gout* before: I shall only add, that he observes, it is generally look'd upon as

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an incurable distemper. He does not think it so, if a proper method of cure were taken : this which he prescribes seems very rational, and the rules both of diet and medicine are very exact and well chosen. Nothing can more fairly promise success, if any will have the patience to follow them.

Besides these twelve books of *Alexander*, we have extant an epistle of his to *Theodorus* concerning *Worms*. It is writ much in imitation of *Galen's* letter to *Cecilianus*, by way of advice for a child of *Theodorus*. He makes a very pertinent reflection, how very difficult it is to give proper advice upon a case communicated and related in general terms ; and therefore for want of seeing the patient, and knowing every particular circumstance, he must take more things into consideration, and make his letter longer, than otherwise it might have been. He begins therefore with describing the *three* species of *Worms*: the  
little

little and slender called, *Ascarides* ; the round, and the broad, or the *Tenia*. Of the last sort he had seen one, near sixteen feet long. He treats of them either with, or without a Fever : and describes the medicines which are proper in these cases, and in use among the ancients, and which are indeed much the same we use now, if we except *Mercurials*.

You will forgive me for my being so long in my account of this Author, because he seems to me to be one of the best practical writers among the ancients, and well worth the perusal of any modern. From some of the receipts at the latter end of the *eleventh* Book one would guess, he was either a *Christian*, or a *Jew*. For a *Pagan* surely would scarce give so much credit to some, which allude to passages in the *Bible*, as he in appearance does. The *Heathens* I know did make use of charms, which consisted of words taken from the *Scriptures* ; but it was chiefly, if not solely,  
in



in the case of *Dæmoniacks* : and they scarce ever applied it to other distempers. The *Christians* seem to have introduced this custom, as was hinted before in speaking of *Ætius*, and may more plainly appear, if we consult *Marcellus Empiricus*, who is full of these *Spells*, and who was without dispute a *Christian*.

*Fabricius* imagines, he has found out the Sect of *Alexander*, which was, he thinks, the *Methodical* : and wonders that *P. Alpinus*, who has given a full and minute account of the *Methodists* and their doctrine, should omit this author. What *Fabricius* founds his conjecture upon is, that *Alexander* mentions a *method* in the Art of Physick : it is true he does ; but he does not mean such a method as the *Methodical* Sect followed, but such a one as *Hippocrates* used ; and in this manner he explains it himself in another place. But the character of this writer is very different from that of a *Methodist* ; who, as such, considers only evident causes,  
and



and what one thing has in common with another, whether the distemper arises from a *Contraction* or *Relaxation*, without any regard to the causes or symptoms, the age, climate, or constitution. The method *Alexander* uses in writing of distempers, is quite the reverse in every particular, and may be seen in almost every page. And besides that he never so much as mentions the great distinction, which the *Methodists* made of diseases, and never once alludes to the *Resumptive* or *Metasyncritical* Circle, the *Diatriton*, &c. which they are so full of: the constant use of *purging*, which he advises in most distempers, and particularly in the *Arthritick*, is entirely repugnant to their avow'd practice. And indeed in general as to *Señts*, I must observe that I do not find any footsteps of them after the time of *Galen*, not even at *Alexandria*, which continued for some Centuries after to be the great School of Physick: unless we may except *Vindici-*  
*anus*

*anus* and *Theodorus Priscianus*, two *Methodists*, who lived near the time of *Valentinian* the second, whose Works seem only to be transcribed from the more ancient Writers of that class. *Galen* indeed so established the rational or *Dogmatical* Sect, that it prevailed ever after, and swallowed up all the others: tho' to speak properly, this was not so much a peculiar sect, founded upon some singular notions, as a collection of the best doctrines, which each sect taught and embraced. And therefore in many things the *Dogmatical* Physicians agree with the *Methodists*, and especially in the method of cure.

*Alexander* mentions several Physicians, and some, who lived near his own time: particularly he gives a great character of *Jacobus Psychrestus*<sup>9</sup>, a man very eminent for his great insight into Philosophy and Physick, which he learned from

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<sup>9</sup> 5, 4.



his father *Hefychius*, who had travelled into a great many countries in the pursuit of knowledge. He was made *Count* and *Archiater* to *Leo the Great* or the *Thracian*, and was so much beloved by this Emperor and the people, that the Senate set up a Statue for him in the Baths of *Zeuxippus*, built by *Severus*<sup>r</sup>. *Isidore* of *Gaza*, called by others the *Pe-lusiote*, who flourished in the time of *Justinian*, saw another erected to him at *Athens*<sup>s</sup>. And this author gives a farther account of him, that he was an *Alexandrian*, tho' his family was originally derived from *Damascus*; that he had great experience in *Physick*, and did many wonderful cures: that in his Practice he frequently ordered *Clysters* and *Suppositories*: that in *Surgery* he seldom made use of fire or the knife: and was no friend to *bleeding*. He was preferred to all the modern Physicians by his scholar

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<sup>r</sup> Malel. in Vit. Leon.

<sup>s</sup> Photius 559.



*Asclepiodotus*, who grew famous for reviving the use of *white Hellebore*, which in that time had grown quite out of vogue, and was not so much as known to *Jacobus* himself. *Suidas* is still larger in the praise of this *Jacobus*, and says he attain'd to a perfect knowledge in Physick, both in Theory and Practice: that he excell'd all his contemporaries, that he might be compar'd to the ancients, and was superior to many of them: that he was belov'd and ador'd by his patients, who thought him inspired from heaven; that they had an implicit faith in him, because they never found his prognostick fail. Such an eagerness had he for improving his own Art, that they thought the Soul of *Æsculapius* was transfused into him. *Kuster* tells us he has retriev'd his true name  $\psi\chi\epsilon\iota\tau\omicron$  out of *Malelas*; whereas in the former editions of *Suidas* it was printed  $\psi\chi\epsilon\tau\omicron$ : however in the translation of *Ætius* we read *Psychristus*. But I have

have reason to believe, that both these readings are wrong, and, if we consult *Alexander*, we shall plainly discover, that it ought to be read ψυχῆχρηστος or ψυχῆχρηστος, (for it may be either) as φιλόχρηστος: for he says in express terms, that this name was applied to him, ὅτι ὑψαίνεσθι τερφῇ ΕΚΕΧΡΗΤΟ. *Alexander* gives him the epithet of Θεοφιλέστατος, and *Suidas* after him calls him Θεοφιλής: and therefore there must be an error in the text of *Photius*, where he and his father it is said ἀσεβέε ἦδην: and whoever attends to what follows in *Photius* will perceive, it ought to be read εὐσεβέε.

Contemporary with *Alexander* was one *Uranius*†, who practiced Physick at *Constantinople*: because his character is somewhat singular and remarkable, so much that *Agathias* thought it worth inserting in his history; I will give you

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† Lib. 2.



a short sketch of it here, as it is related by that Author. He was by birth a *Syrian*, by profession a Physician, who having not the least knowledge of *Aristotle*, or the ancient philosophy, had nevertheless an high conceit of his own learning, which only consisted in a fluency of expression, and a peremptoriness in maintaining whatever Paradox he advanced. He was generally found either at the Booksellers shops, or the publick Piazza's adjoining to the Court: and there disputed with several persons, who had as little tincture of learning as of morality; and that about questions of a high nature, which he argued upon with great rashness and presumption; such as the attributes and essence of God: speculations very much above our low comprehensions. Yet this gave these disputants no concern. The Club met generally in the evening, after the debauch of the day, and in a libertine manner,



discourfed of the moft fublime and moft difficult questions, without either convincing others or being convinced themfelves : fo that they parted in the opinion, which they feverally were preposfeffed with, and ufually ended their quarrels like gamefters, with bitter reproaches and hot words. See here the refult of their difputes ; which moft commonly concluded in a mutual averfion to each other. Amongft thefe *Uranius* was one of the firft rank, and made as great a buftle as *Therfites* does in *Homer*. But he had no abilities, for want of folid learning, to lay down any of his arguments in due form : which made him fometimes eager to anfwer doubts before they were raifed, and fometimes, inftead of anfwering objections, to ask the reafon of their being rais'd. In fhort he constantly inverted the rules, which are ordinarily obferved in regular conferences, which muft always hinder the difcovery  
of

of truth. He affected Scepticism in every thing, and formed his answers upon the model of *Pyrrho* and *Sextus Empiricus*. He imagined, that the opinion he was of, that there could be no certain knowledge of any thing, would make him perfectly easy, and free him intirely from any remorse or trouble of mind. His capacity being thus very mean, he could only impose upon the simple and the credulous; and if he was at a loss in any Science, he was much more so in the knowledge of the World, and the conversation of the more polite Part of it. He frequented the houses of great persons, where having eat and drank to excess, he became the ridicule of the company: and abandoning himself to all liberties of speech, as he was often laughed at, so he was sometimes affronted and even beaten; so that he was as necessary at entertainments, as a fool or a buffoon. *Uranius*, as I have here described him, went with *Arebindus* no-



minated Ambassador to *Persia*, where he acted the Impostor to a nicety, concealing his defects, and colouring over his actions with a specious Shew of Virtue. He had the garb and habit of a Philosopher; the first time of his appearance before *Chosroes*, was with so serious and grave an air, that it made a suitable impression much to his advantage, and procur'd him a favourable reception. *Chosroes* immediately assembled his *Magi* to confer with him, when many questions of natural Philosophy were stated; as whether the World was from all Eternity: whether there was one Cause or Principle of all Things: *Uranus*, tho' wholly ignorant of all these matters, yet by his confidence supported his reputation, and he had this advantage over his adversaries, as *Socrates* says in *Gorgias*, *That if he knew little, those he disputed with knew much less.* This Empirick so far insinuated himself into favour, that the King set him at his own table,



table, drank to him, and presented the Cup to him to pledge him, an honour he had never yet vouchsafed to any one else: protesting, that of all the Philosophers (and he had seen many of the most famous, who came on purpose from *Greece* to his Court) *Uranius* was the most acute and accomplish'd.

It is certain a little before this, *Damascius* the Syrian, *Simplicius* of Cilicia, *Diogenes* of Phœnicia, and *Isidorus* of Gaza, &c. the greatest and most learned Philosophers of the age, having an aversion to the establish'd Religion, retired into *Persia*, having heard an advantageous character both of the Government and the People; that nothing but justice and equity adorned the Throne; that a perfect submission and intire obedience was the happiness of the people: that no plunderers or robbers were permitted; nothing but truth and fidelity practiced. No sooner had they arrived there, but to their regret they found

the reverse; all violence and injustice was allow'd: and when they approach'd the presence of the Prince, they quickly perceived their error; and that tho' he had the vanity to discourse of Philosophy, he knew very little of the subject he discoursed of: and tho' *Chosroes* was convinced of their merit, yet he still entertained a high opinion of *Uranius*. And the reason, in my opinion, is very plain and natural, which is, that we have a great inclination to every thing which resembles us, and an aversion to whatever is above us. After *Uranius's* return from his travels, he received letters full of civility from *Chosroes*, in which he often stiled him his Master. Henceforward *Uranius* was insupportable: the friendship of *Chosroes* heightened his arrogance so, that he look'd with an air of contempt upon every body. He never was in company at table, but still he was repeating the favours he had received from that Prince, and the conferences



ferences they had had often together : so that he seem'd to bring nothing from these foreign countries, but an improvement of pride and vanity ; qualities, with which he was well furnished before his travels. The encomiums he gave of this Prince, made some impression upon the credulous, and was the occasion, that some imagined he was very learned. Those who had a great curiosity in seeking after new and strange accounts, and not being able to judge either of the person, who gave these commendations, or of him, to whom they were given, were often surprized by the artful colourings of this Impostor. It must be own'd, that *Chosroes* had all the qualifications necessary to form a great Captain ; we can't in justice but admire his courage, never abated by age or the fatigues of War ; but for what relates to learning, it must be confessed, that he could attain to no greater a height than what a scholar of *Uranius* could arrive at.



From this description of *Agathias*, one may form a true character both of *Chosroes* and *Uranius*. And the treatise concerning the *Wisdom of the* Indians, will convey to us much the same Idea of this Prince, who was very fond, as we shall see, of another Physician, called *Perzoes*.

*Blondus*, *Sabellicus*, and *Tiraquellus* think, that *Procopius*, the excellent Historian, who wrote in *Justinian's* time, was a Physician : tho' they give no reasons for their thinking so : and therefore by others are thought to *dream* this. And yet if we reflect upon some passages in his Works, there seems to be ground at least for such an opinion : for in some things relating to Physick, he is remarkably more minute and circumstantial, than we find any other Historian is, even than his great admirer and imitator *Agathias* ; who as he was bred up to the *Bar*, is often indeed full of reflections in his own Way, that of the  
*Law*.

*Law*<sup>u</sup>. To give a few instances ; he takes notice, that the Water of the *Po*<sup>x</sup> so weaken'd the stomachs of the soldiers, and impair'd the digestion, that it threw them into very dangerous Loosenesses and Dysenteries : and in describing the terrible *famine*<sup>y</sup>, which then all *Æmilia* laboured under, he tells us, that the natural heat of the stomach was quite extinct ; so that if they were not fed like children, by little and little at a time, food, if they could get it, overloaded and destroyed them : and that the *Bile*, which was predominant in their constitutions, gave a tincture to the whole body. He observes that the country, wherever the *Sulphur* of *Vesuvius* reaches<sup>z</sup>, is very fertil ; and that the air which surrounds that mountain is extremely subtle and healthful ; and upon this account he thinks, it is, that for many ages

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<sup>u</sup> Lib. 2. Berytus & Alexandria. Lib. 4. *Court of Justice held by Anastasius.*

<sup>x</sup> Bell. Goth. lib. 2.

<sup>y</sup> *ibid.*

<sup>z</sup> *ibid.*



the Physicians had recommended this climate to *consumptive* persons. You will not think, I hope, that I refine too much, if I should remind you, that he takes all opportunities of doing honour to our faculty. By his account, *Elpidius, Archiater* to *Theodoric*<sup>a</sup>, is the person to whom that great Monarch just before his death opened his mind, and confessed the injustice he had been guilty of in taking away the lives of *Symmachus* and *Boethius*. And when Embassadors were sent to *Chosroes*<sup>b</sup>, during the siege of *Edessa*, *Stephen* a famous Physician, a native of that place, who indeed had formerly been Præceptor to that Prince and had cur'd his Father *Cavadès*, was not only appointed one of them, but was pitched upon to be their Orator at their being introduced into his presence. The same *Chosroes* sometime after, when he was treating about a Peace with *Justi-*

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<sup>a</sup> *ibid.*

<sup>b</sup> *Bell. Persic. 2.*



*nian*<sup>c</sup>, would not so much as make a truce with him, without one condition, that *Tribunus*, whose skill in Physick he wanted, and was acquainted with, should be sent to him : and the Historian remarks, that as soon as this was done, a truce was concluded for five years. And in another place<sup>d</sup>, he gives a further account of this Physician, that he was a native of *Palestine*, his countryman ; that he was one of the most skilful of his profession ; that he was wise, temperate, and pious. He had formerly cur'd *Chosroes* of some illness, for which he was rewarded with great Presents, and returned into his own country. After the truce just now mentioned, he stay'd with *Chosroes* a whole year : that King offer'd to give him whatever he demanded ; but instead of asking for money, he only desir'd, that some of the *Romans* who were captives in *Persia* might

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<sup>c</sup> *ibid.*

<sup>d</sup> Bell. Gothic. lib. 4.

be set at liberty. *Chosroes* at his request, not only releas'd those whom he had particularly named, but three thousand others : which made the name of *Tribunus* famous thoroughout the whole extent of the Empire. You will agree with me thus far at least, that *Procopius* represents men of this profession in no mean figure ; and by the respect which we see was paid to them, we may easily imagine they then bore a character of being versed in several parts of knowledge, and particularly in all that which related to their own Art. This author has still something more applicable to this purpose, in relation to *Wounds* : in speaking of the Wound of which *Artabazes* dy'd, he is so particular as to say, an *Artery*<sup>e</sup> in the neck was cut through, so that the blood could not be stop'd. *Trajan* was wounded above the right Eye near the Nose<sup>f</sup>, the Iron-head of the

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<sup>e</sup> Bell. Gothic. 3.

<sup>f</sup> Bell. Gothic. 2.



Arrow, tho' large and long, pierced so deep, that it could not be seen : but he expressly delivers his own opinion, it was not plain to him, he says, where it entred, but so it was lodged, and gave *Trajan* no uneasiness : *five* years after the head of the Arrow began to appear in his face ; he adds, that when he wrote this, it had been making its way out by degrees for three years ; and that in all appearance it would in some time all come out, without giving much pain : for then it was not at all troublesome. In like manner he gives a full detail of the Wound, which *Arses* had received in the face<sup>g</sup>, and relates how the *Surgeons*, who had a mind to extract the Dart, were in great perplexity, not only on account of the *Eye*, which they despair'd of saving, but of the *Nerves* and *Membranes*, which they were afraid must be much wounded by the *operation*, so as

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<sup>g</sup> *ibid.*



to endanger his life, while it was performing. One of them called *Theoctistus*, pressing upon his neck, ask'd him, if he felt much pain: upon *Arses* saying, he did; he answer'd, then you will be cured, and not lose your Eye: this he was the more positive in, because by that he judg'd, that the point of the Dart had not penetrated far within the skin. Then he cut off all the Dart (the wooden part) which appear'd without: afterwards made an *incision* into the *body* of the Muscles, where the pain was most violent; he took out the rest of the Dart, the head of which was *Tricuspid*, without any difficulty, and cur'd the *Wound* without so much as leaving a *Scar* in his face. But the same operation being made upon *Cutilas*, where more force was necessary to pull out the Arrow, he fell into *fainting Fits*: and the *Membranes* of the head being *inflamed*, he died quickly after in a *Phrensy*. *Bucas* lost a great deal of blood, and

was

was very near expiring upon the spot : which the Physicians imputed to the *Muscles* being wounded *transversely*, and not in a *direct* line : however he died three days after.

These passages, I say, might incline one to think, that *Procopius* had been bred up to *Physick* : at least they are sufficient to shew, that he had some Tincture of that Science, when he was young, before he was employed in civil affairs : and accordingly in the description of the cases here given, we may observe, that he uses the very Words and Phrases, which are familiar with the physical Writers. But not to carry the argument any further, whether he was ever of this Profession or no : I will venture to say, he has described *one* Distemper with as much art and exactness, and as much in the language of Physick, as if he had been a professed Physician. This is the *Plague*, which rag'd at *Constantinople* in 543 ; and because the Hi-

story



story of it is not only writ in a very masterly Way, but may furnish us with several useful reflections in regard to that Disease, I shall take the liberty to transcribe it here, in Dr. *Howell's* Words, and add a few remarks upon it.

“ This was a Plague, which almost  
 “ consumed mankind, of which *Proco-*  
 “ *pious* concludes, there was no other  
 “ cause, than the immediate hand of  
 “ God himself. For it neither came  
 “ upon one part of the World alone,  
 “ nor in one season of the year, whence  
 “ subtile Wits (as he saith) might fetch  
 “ pretensions. It afflicted the whole  
 “ World, and all conditions of Men,  
 “ though of never so contrary a nature,  
 “ and disposition; sparing no constitu-  
 “ tion nor age. The difference of men  
 “ as to their places of dwelling, diet,  
 “ complexions, inclinations, or any  
 “ other thing, did no good in this Dis-  
 “ ease. Some it took in Summer, some  
 “ in



“ in Winter, and others in other Sea-  
 “ sons. It began among the *Ægyptians*  
 “ of *Pelufium*, and spread to *Alexandria*  
 “ with the rest of *Ægypt* one Way, and  
 “ the other to those Parts of *Palestine*,  
 “ which border upon *Ægypt*. From  
 “ thence it travelled to the utmost  
 “ bounds of the World, as by set jour-  
 “ nies and stages, making destruction  
 “ its only business, and sparing neither  
 “ Island, Cave, nor top of Mountain,  
 “ where mankind inhabited; for if it  
 “ leap’d over a country, returning af-  
 “ ward, it left it no cause to rejoice  
 “ above its fellows. It began still at  
 “ the *Sea-coast*, and thence went to the  
 “ inland Parts. In the second year of  
 “ its progress, it arrived at *Constantino-*  
 “ *ple* about the middle of the *Spring*,  
 “ where it was the fortune of *Procopius*  
 “ then to reside: apparitions of Spirits  
 “ in all shapes human were seen by ma-  
 “ ny, who thought the man they met  
 “ struck them in some part of the bo-  
 L dy;

“ dy ; and so soon as they saw the Spi-  
 “ rit, they were seized with the Disease.  
 “ At first when they met them, they  
 “ repeated divine names, and fled into  
 “ churches to no purpose. Afterwards  
 “ they were afraid to hear their friends  
 “ call them, locking themselves up in  
 “ their chambers and stopping their  
 “ ears. Some dreamed they saw such  
 “ sights, others heard a voice tell them,  
 “ they were inrolled in the number ap-  
 “ pointed to die : but most without  
 “ warning became feaverish suddenly :  
 “ their bodies changed not colour, nor  
 “ were hot ; the Feaver being so remis-  
 “ ’till evening, that neither the patient  
 “ nor physician, by his *Pulse*, could  
 “ apprehend any danger. Yet to some  
 “ the same day, to others the next, or  
 “ many days after, arose a *Bubo* both in  
 “ the groin, the arm-holes, under the  
 “ ear, and in other parts : these were  
 “ the general symptoms which happen-  
 “ ed alike to all the visited persons.

“ There



“ There were others different; whe-  
 “ ther so made by the diversity of bo-  
 “ dies, or the will and pleasure of him  
 “ that sent the distemper, our author  
 “ cannot say. Some were seized with  
 “ drowsiness and slumbering, others  
 “ with a sharp distraction: the slum-  
 “ berers forgot all things; if they were  
 “ look’d to, some would eat, some, that  
 “ were neglected, starved to death. Those  
 “ who were distracted were vexed with  
 “ apparitions, crying there were men to  
 “ kill them, and running away; being  
 “ so troublesome and unruly, that their  
 “ keepers were pitied as much as they  
 “ themselves. No Physician or other  
 “ caught the Disease by touching sick  
 “ or dead bodies; many strangely con-  
 “ tinuing free, though they tended and  
 “ buried infected persons, and many  
 “ catching it they knew not how, and  
 “ dying instantly. Many leapt into  
 “ the Water, though not for thirst;  
 “ and some into the Sea. Some with-



“ out slumbering or madness had their  
 “ *Bubo* gangrened, and died with extreme  
 “ pain; which doubtless happened also  
 “ to those that had the phrensy, tho’  
 “ being not themselves they understood  
 “ it not. Some Physicians hereupon  
 “ conceiving the venom and head of the  
 “ disease to lie in those Plague-sores,  
 “ opened the dead bodies, and search-  
 “ ing the sores, found an huge car-  
 “ buncle growing inward. Such whose  
 “ bodies were spotted with black pim-  
 “ ples the bigness of a lentile, lived not  
 “ a day. Many died of vomiting blood.  
 “ Some that were given over by the  
 “ most eminent Physicians, unexpect-  
 “ ly recovered; others, of whose reco-  
 “ very they thought themselves secure,  
 “ suddenly perished: no cause of this  
 “ sickness could be reached by man’s  
 “ reason. Some received benefit by  
 “ *Bathing*, and others it hurt. Many  
 “ died for want of cure, and many es-  
 “ caped without it: in a Word, no  
 “ Way

“ Way could there be found of prefer-  
 “ vation, either by preventing the Sick-  
 “ ness, or mastering the Disease, no  
 “ cause appearing either of their falling  
 “ sick, or of their recovery.

“ Women with child which were vi-  
 “ sited, certainly died ; some miscarry-  
 “ ing, some fairly delivered, and pe-  
 “ rishing with their children : *three* wo-  
 “ men only were safely brought to bed  
 “ and recovered, their children dying ;  
 “ and one died whose child had the  
 “ hap to live. Such as had their sores  
 “ great and running plentifully, esca-  
 “ ped ; the violence of the Carbuncle  
 “ being thereby asswaged, and this was  
 “ the most certain sign of health. Such  
 “ whose sores staid as they first arose,  
 “ underwent the miserable accident for-  
 “ merly mentioned. Some had their  
 “ thighs withered, when the sores rose  
 “ upon them and did not run. Some  
 “ escaped with diminished tongues, and  
 “ lived stammering, or uttering sounds

“ without distinction all their days.  
 “ In *Constantinople* this Pestilence lasted  
 “ *four* months, raging three months  
 “ with all extremity. In the beginning  
 “ few died more than usual. Then it  
 “ growing hotter and hotter, it came  
 “ to *five*, and at last to *ten* thousand,  
 “ and more every day. At first they  
 “ buried their dead carefully, but at  
 “ length all came to confusion, and  
 “ many lay long unburied. Ser-  
 “ vants were without Masters, rich  
 “ men had none to attend them. In  
 “ the afflicted City was little to be seen,  
 “ but empty houses, no trade going or  
 “ shops open. The Emperor was much  
 “ concerned, as he had reason, and  
 “ committed the oversight of the poor  
 “ to *Theodorus*, one of the *Referendarii* that  
 “ subscribed the Emperor’s answers to  
 “ petitions ; who to those that were in  
 “ want, distributed money out of the  
 “ treasury. To these passages *Procopius*  
 “ adds, that many out of fear left their  
 “ bad



“ bad courses of life and consecrated  
 “ themselves to God ; and many when  
 “ the danger was over, fell to their old  
 “ despising of God again.” And so he  
 ends the description of this Pestilence.  
 Dr. *Howel* proceeds, and says, “ That  
 “ though it continued but *four* months  
 “ at *Constantinople*, yet *Euagrius*, who  
 “ both himself and his family was  
 “ visited with it, tells us, it lasted the  
 “ space of *two* and *fifty* years, prevail-  
 “ ling so much, that it destroyed in a  
 “ manner the whole World. Seeing  
 “ then that it outlived *Procopius*, no  
 “ wonder if in so long a time, and so  
 “ various climates and countries, it  
 “ changed its symptoms, and varied  
 “ something from those accidents which  
 “ fell out in his days. Yet the descrip-  
 “ tion of *Euagrius* differs very little  
 “ from that of his. He affirms, that in  
 “ some things, it resembled the Plague  
 “ of *Athens*, described by *Thucydides*,  
 “ and in other respects was far unlike

“ it. That it began in *Æthiopia* as the  
 “ other did, but exceeded all that ever  
 “ were before it, and considering how  
 “ long a time it raged, and flitted up  
 “ and down, he admires that *Philostra-*  
 “ *tus* should wonder at the Plague which  
 “ happened in his time, because it conti-  
 “ nued *fifteen* years together. But where-  
 “ as the History of *Procopius* was suffi-  
 “ ciently known to the World, and  
 “ particularly to *Euagrius* himself, who  
 “ has taken, as all learned men know,  
 “ much out of it, it's a greater Wonder  
 “ he should say, that the History of this  
 “ Plague was not penned, 'till the time  
 “ he undertook it; for we cannot in the  
 “ least imagine, but it was the self-same  
 “ Plague they both speak of.”

As Dr. *Howel* observes, it was no  
 doubt the same Plague they both speak of,  
 (*i. e.*) the Plague which lasted 52 years,  
 and began in the East, as *Agathias* relates,  
 in the *fifth* of *Justinian*: tho' to make his  
 account agree with that of *Procopius*,  
 it



it shou'd be read, I believe, the *fifteenth*. But there is this further distinction to be made in the case, that *Procopius* only described it, as it appeared the *second* year at *Constantinople*; and that *Euagrius* gave such an account of it, as fell within his own observations many years after, as he assures us himself: for when it first began, as *Procopius* relates, he was then but a child and learning his *Grammar*<sup>b</sup>, tho' indeed he had the Plague at that time. So that we may easily perceive the true reason, why these authors differ in some points. The latter, for example, relates one circumstance as very wonderful, that no native of an infected town, tho' he was in a region distant from the Infection, found any advantage in changing the Climate: for such a one was sure to be singled out as a sacrifice to this distemper, which raged among his countrymen. A fact, in which perhaps the veracity of the author

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<sup>b</sup> lib. 4.



would have been called in question, had not there been a parallel instance, in more modern times, as will appear in its proper place, when I come to speak of the *Sweating Sickness*. The same *Eua-grius* says, that this Plague resembled in some things that of *Athens*, described by *Thucydides*; and in other respects was far unlike it; but mentions no particulars, which indeed are many. The very manner of spreading itself was different. Here they sometimes died *instantly*, or the *first* day, as those who were spotted with black Pimples, or at least in a *few* days. And *Agathias*, who describes the same Plague upon its *second* return at *Constantinople* in 558<sup>i</sup>, expressly says, that most of them died in a moment, as in a strong *Apo-plectick* Fit, and that those who had the most natural strength, never outlived the *fifth* day. In *that* of *Athens*, the distemper run out to the *seventh* or *ninth* day, which were the most usual days of morta-

lity. In *that*, every body was infected, who came *near* the sick : here it is particularly said to be far otherwise. The *Stupor* which seiz'd them at *first*, the *rolling* about the ground, what he observes of a *Bubo*, and of Women with child, do not occur in *Thucydides*. *Galen*, in comparing the descriptions of the Plague, as they are given either by *Hippocrates* or *Thucydides*, takes notice, that the latter described it only as any common observer would, and not as a Physician, and enumerated every circumstance, which he remark'd, without any distinction. *Procopius*, I think, may be said to have described it in both capacities : such are the observations just now mention'd, about Women with child, *three* of which only recovered, and of a *Bubo*, the running of which was first taken notice of by him as the most certain sign of recovery, and is so found by experience to be to this day in the like case. He talks in the way of a Physician, when he mentions the several  
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methods which were tried, and where they failed, as *Bathing*, &c. the different symptoms they were taken with; and particularly with regard to the *Feaver* he tells us, the bodies did not change colour nor were hot; and the *Feaver* was so *remiss* till the *evening*, that not even the Physician, by the *Pulse*, could apprehend any danger. You will perceive in reading *Thucydides* and *Lucretius*, that they had no other way then of judging of the *Feaver*, but by the *touch* of the body: the art of feeling, and forming a judgment by the *Pulse* being of a more modern date. He shews us, how little the Physicians were satisfied with the causes assigned for this distemper; and therefore in order to a further knowledge, they *opened* the bodies of those who died of *Plague Sores*, and found a huge *Carbuncle* growing inwards. And from hence by the way we may learn, that Physicians in *this Age*, were not defective in any part of knowledge, which contributed



buted to the improvement of their Practice : and that in particular as they did exercise the Art of *Anatomy*, which is plain from this place, so they made the right use of it in applying it towards finding out the causes of distempers, and their several symptoms. One thing is very observable in this history, with regard to *Contagion*. *Procopius* informs us, that no Physician or other caught the disease (I suppose he means, not for that reason only) by touching sick or dead bodies, many strangely remaining free, tho' they tended and buried infected persons : *Euagrius* adds, that tho' for the most part it was catching, yet some, who continued with the sick, and were weary of their lives, cou'd meet neither with the distemper nor death : and without dispute in all epidemical diseases, tho' never so contagious, instances will be found, where the Infection has not been communicated to every individual. But that *Procopius* himself thought, that it

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was propagated by *Contagion*, whatever might be the original cause, is plain from what he further remarks, that it began constantly at the *Sea-coast*, and from thence diffused itself into the *Inland* Parts : a matter of fact, which is a better argument than any reasoning, how far this distemper may be imported and spread by commerce and communication, which indeed was the general opinion in the early ages.

I will cary this digression, if it be one, no further ; but will return now to speak of the *fourth* and the last of the old *Greek* Writers, as I at first proposed. This is *Paulus* ; who tho' placed by Mr. *le Clerc* as high as the *fourth* Century, lived however in the *seventh* : and who, tho' he was a compiler, is still very different from *Oribasius* and *Ætius* : he transcribes a great deal from *Alexander*, not only the Sense, but the very Words. He was born in the Island *Ægina*, was a great traveller, and had opportunities of see-

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ing a great deal of practice in different countries. One may commend him so far as to say, that his descriptions of distempers are short and full : and, how great a copier soever he be, one thing is remarkable in him, that he treats particularly of *Womens* distempers, and seems to be the first instance upon record, of a profess'd *Man-Midwife* : for so he was call'd by the *Arabians*, and accordingly begins his book with disorders incident to pregnant Women.

We owe some fragments of the ancient Physicians to *Paulus* ; particularly the letter of *Diocles* to *Antigonus*, concerning the preservation of Health<sup>k</sup>.

But let us consider this author a little more distinctly, notwithstanding some have represented him in so mean a figure, as if nothing of moment was to be found in his Writings. I shall confine my self only to his *sixth* Book : in which I will



venture to say, he is much more than a bare collector. This book contains an account of *chirurgical* Operations only, and which one may call the most compleat body in its kind, at least of any before the restoration of learning. I mean the Operations, which are *manual*; for external applications to *Wounds, Ulcers, &c.* he treats of at large in the *fourth* book. 'Tis very plain from this treatise, that he performed operations in *Surgery* himself: he describes the different methods, which were made use of by the ancients, by his own contemporaries, and by himself. He relates the good or bad success in several of them: and writing upon this subject, he is so far from being a mere copier, that he sometimes dissents from *Galen*<sup>l</sup>, and seems to prefer a more modern experience to his. So in the chapter about an *Aneurysm*<sup>m</sup>, after having quoted what *Galen* says upon this article,

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he interposes his own opinion concerning the method of cure. The like he does with regard to *Leonides* (an author often quoted by him and *Ætius*) in the treatment of a *Hernia Varicosa*. Nay, he is so far from blindly following the ancients, that he is not satisfied with what *Hippocrates* himself says, about setting a broken nose<sup>n</sup>; but subjoins a more modern practice, which he seems to prefer.

And what if this *compiler* at last should acquaint us with several things in this Art, which have not been observed, as far as it appears, by any of the more ancient Writers? yet this, I believe, upon examination we shall find to be true: especially if we compare him with *Celsus*, who has given us the most perfect account of *Surgery*, as it stood in the times of the ancients, and in his own; and to which indeed very little addition

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was made in the time of *Galen*. In several points *Paulus* is fuller and more particular; as in the cure of a *Hydrocephalus*, in performing the *Paracentesis* either in the *Thorax*, or the *Abdomen*, &c. and in extracting the *Stone* from the bladder. However *Celsus* excludes all under *nine*, and above *fourteen*, from this last operation; yet our Author allows it in a middle, and sometimes in an advanced age, tho' he owns it succeeds best in the younger years. He has this further remark upon this operation, that the incision should be made not exactly in the middle of the *Perinæum*, but rather obliquely on one side, (the left) towards the buttock: and that it ought to be large externally, tho' on the inside no bigger, than to allow a passage for the stone. There are other particulars in this Treatise of Surgery, which seem to be intirely new: he treats of the fracture of the *Patella* °, a case indeed which seldom



he says happens, but which our Surgeons often meet with. *Celsus* makes no mention of it. He opens the *Jugular* veins <sup>p</sup> in obstinate rheums of the eyes; an experiment never tried, as far as we can trace, by any Writer more ancient, except *Alexander*, who used this way of bleeding in a *Quinsy* <sup>q</sup>. *Paulus* describes the manner of dividing the *Arteries* behind the ears, as in an inveterate *Opthalmia* and *Vertigo*: contrary to the aphorism of *Celsus*, who says an artery once divided cannot unite. Yet *Aretæus* we know often did, and *Galen* sometimes, order an artery to be opened, as we shall see more at large. As he uses *Cupping* frequently, he seems to have invented a new instrument or scarificator, with *three* points, or fleams, so as to make *three* incisions at once <sup>r</sup>.

The chapter concerning the extraction of Darts and Arrows, &c. is

<sup>p</sup> 40.

<sup>q</sup> 4, 1.

<sup>r</sup> 41.

<sup>s</sup> 86.

very remarkable, and contains many excellent rules: and the description he gives of that sort of Weapons then in use among the ancients, particularly the *Ægyptians*, is very curious, and clear, as well as concise.

He is very full and exact in describing the several sorts of *Hernia's*, particularly the *Intestinal*: he gives the different causes and symptoms of it, as it proceeds either from a rupture, or the distention of the *Peritonæum*: by which the Gut (part of the *Ileon*) which lies upon the productions of this membrane, may easily fall down either into the *Groin* or the *Scrotum*. And therefore in some cases it is necessary to make an incision, in order to replace the Gut; the whole operation is here very accurately and circumstantially explained, much more so than it is even in *Celsus*: a way of practice, which the ancients we see

were well acquainted with; which *Rouset*, *Parey*, and *Hildanus* recommend, and which has been revived by some eminent hands among our selves. *Celsus* indeed says, that 'tis an application, which only *puerilis ætas* & *Modicum malum recipit*: and the two last authors mention'd, advise it only in cases of extremity, as the last refuge: and 'tis certain that in their time the practice was almost quite out of use; tho' the instance *Hildanus*† gives us of one above seventy, whom he cur'd this way, may convince us, that the operation is not only safe, but would do better, if used at first, before there can be any danger of a *Mortification*. *Barbette* proposes a way of cutting through the *Abdomen* in an *Iliac* passion, where there is an *introsusception* of the gut: if such a method be practicable in this case, one should think

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† Cent. 6, 73.



it ought rather to be attempted, in failure of other applications, where the distemper proceeds from either of the *Hernia's* described; especially when there seems to be as little danger in cutting thro' the *Epigastrium*, as there is upon the processes of the *Peritonæum*. Accordingly *Rouset* gives us *three* instances, where the operation was actually performed; one by a Mountebank, and the others by Surgeons of repute at that time. An *inguinal Hernia*, according to all authors, is only the beginning of an *intestinal*; the gut they say must descend by the groin first, before it can pass into the *Scrotum*; and therefore *Paulus* says, that a *Bubonocoele* always preceeds an *Enterocoele*. Accordingly all Anatomists, as well as Surgeons, have agreed, that in a *Bubonocoele* the gut comes down thro' the rings, or perforations of the abdominal Muscles. But tho' no doubt this be often the case, yet perhaps, if we examine the matter a little more nicely,

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we shall find, that the gut may take another course, hitherto unobserved, to produce a *Bubonocèle*. The cavity in the thigh between the muscles *Pectineus* and *Sartorius*, where the crural vessels descend, is very remarkable : and the tendons of the abdominal muscles lie so loose, that there is nothing but a little fat, and some membranous fibres, which separate it from the abdomen : so that we see, how easy it is for the *Peritonæum* to be forced down by any pressure, thro' this interstice into the cavity we have described : especially since, considering our erect posture, it lies in a more direct line than even the rings of those tendons. And if we compare the accounts of those very authors, who think that a *Bubonocèle* is always formed in the processes of the *Peritonæum*, we shall find them often agree to this place only. *Acquapendente* remarks, that a *Bubonocèle* and a *Varix* of the crural vein, have often been mistaken for a *Bubo*, in which case, upon incision,



the vein or the gut has been cut, so as to endanger the person's life. *Bubo's* we all know, are always in those glands, that lie upon the crural vessels ; and therefore 'tis plain he thinks in many instances, that a *Bubo*, and a *Bubonocèle* are in the same place, that is, in the place we have taken notice of. Upon this account too it seems to be, that *Celsus* calls a *Bubonocèle*, a *Varix Inguinis*. The late Mr. Serjeant *Bernard* was concern'd in a case, where the gut reach'd under the skin down to the middle of the thigh : in which instance, it must descend thro' the interstice under the tendons of the abdominal muscles ; for if it had come down thro' the rings, it must have gone directly into the *Scrotum*, and not turn'd down the thigh. And *Barbette* seems to imply this way, tho' he has expressed it with the same obscurity as other Writers do, when he says, *experimur etiam processum Peritonæi ita posse disrumpi, ut intestina non in Scrotum, sed inter cutim*



& *Musculos, versus femur, sese urgeant.*—Where, by the Words *processum Peritonæi*, if he means the productions, which arise from the *Vaginal* coat, we have seen that the gut cannot get into the situation he describes. Perhaps it may give us a little more light into this matter, if we consider the *Inguinal Hernia* in Women: *Fallopious* deduces it from the round ligaments of the Womb, which make the same perforations in the tendons of the abdominal muscles of that Sex, as in Men. 'Tis very true they do, but not in the same place: for these rings in Women lie just upon the *Os Pubis*; and the ligaments, as soon as ever they are passed thro' them, are strongly inserted with the tendons into the bone. So that by the straitness of the passage, there seems to be little room for a *Hernia* here; and if there were, the gut must lie just forward upon the *Os Pubis*: as indeed we find sometimes it does, even as far as the very *Labia Pudendi*. But I believe

lieve in such ruptures, 'twill be found generally to take its course much more aside towards the *Os Ilium*. And therefore *Celsus* expressly says, that a *Hernia* in Women *fit præcipuè circa Ilia*. That the *Peritonæum* may be distended in this place, is plain from the account *Nuck* gives us of a dropsy in this membrane, which spread itself, he says, and formed a sack in the thigh, *per vacua Musculorum spatia*. And *Hildanus*, in explaining the reason of a *Hernia Uterina*, thinks the extension of the *Peritonæum* happened *circa foramina illa, circa quæ Bubonocèle fit in Mulieribus*: and if we compare these words, which are ambiguous enough, and perhaps left so on purpose, with the description of the posture that is given of the tumour, we shall find them only applicable to the interstice we speak of. How capable the *Peritonæum* is of a large distention, an *Ascites* alone will sufficiently convince us; and that such a distention, as there is generally  
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in the present case, without any rupture, may happen, not only at its productions in the groin or the navel, we may find sufficient proof in the Writers of Surgery. *Barbette* gives instances of such *Hernia's* in the back, above the navel, below the navel, *longè supra Iliā*, he says, which have been by mistake cut for an Abscess. *Paulus* indeed distinguishes the intestinal *Hernia*, as it proceeds either from a *rupture*, or a *distention* of the *Peritonæum*: and says expressly, that this operation by the knife is only to be attempted in the latter case. But whoever with attention considers the Anatomy of these parts, must, I think, be of a quite contrary opinion: for in a *rupture* of the *Peritonæum*, if this operation be performed, and the gut once reduced, we may conceive, how all the parts of the *Peritonæum*, as well as the rest, may be so healed and united, so as not to give way to any descent of the gut for the future. But in the case  
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of *distention*, if after the operation, the *Peritonæum* remains distended, as it must, how is the return of the *Hernia* prevented? To form a right notion of such a *distention*, one ought to see the curious preparations of that diligent and accurate Anatomist, Dr. *Douglas*: who is the first who has given us any true Idea of the *Peritonæum*; a part which is so much concern'd, and whose structure should be so much considered, not only in this operation, but in the *High-way* for cutting for the *Stone*. He too is the first, who has plainly shewn, that the elongation of the external *Lamella* of the *Peritonæum*, does not form the *Vaginal* Coat of the *Testicles*, as Authors say, but a coat peculiar to the Seminal Vessels, which he very properly calls *Tunica vasorum spermaticorum propria*. And he afterwards observed in reading *Paulus*, that this coat was known to, and described by him, by the name of ἐλικοειδής, from the many contorsions there are in those

those vessels, which it covers. *Cornarius* and the rest of the expositors, not having any notion of such a coat, correct this word, and would have it read ἐρυθροειδὴς, and so confound it with the *Vaginalis*.

Another operation which *Paulus* describes, is the manner of opening the *Arteries* behind the ears, \* in defluxions and other diseases of the head: the practice indeed in general, is as old as *Hippocrates*, and touch'd upon by *Galen*; but the way of doing it is here more precisely specified, either by a *transverse* Section and applying a Cautery after, or by *Excision*. The words <sup>n</sup> of *Paulus* very fully explain the *first* method, and he gives an account in the next chapter of the *second*: which we may suppose was the more common of the two; for *Aretæus*, who is always very exact in his expressions, mentions no other *Arteriotomy*, than this last. <sup>x</sup> These were the two me-

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\* 6. 4. 5.

<sup>n</sup> διὰτέμνειν, διαίρειν.

<sup>x</sup> ἐκτάμνειν. 1. 2. 3.



thods in *opening* the Arteries, which were observed, not only in the *Greek*, but the *Arabian*<sup>y</sup> school. One would wonder therefore, how some moderns should imagine, that the ancients used the same way of *bleeding* in Arteries, as they did in the Veins, *i. e.* by making the incision with a *Lancet*. There is indeed one, and the only one instance which I can find upon record, where *Arteriotomy* can be supposed to be performed in this manner; and that is in *Galen*<sup>z</sup>: who, as far as I can comprehend his meaning in his treatise of curing diseases by opening a blood vessel, seems to be the *first* who ventur'd upon it, and made the experiment upon himself. He was dangerously ill of a pain that seiz'd him near the *Diaphragm*, and was admonished *twice* in a dream to try this practice; and accordingly he did try it, in opening the Artery between the thumb and the fore-finger, so as to let out near a pint of blood:

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<sup>y</sup> Rhaz. ad Almanz: 9. 1.    <sup>z</sup> Curat: per V.S: 13:



by which his pain was immediately eased, and his life saved. He gives you the like instance of a Priest being recover'd of a desperate *Pleurisy*, by opening the *Artery* in the hand. This, he says, put him upon the practice of opening the *Arteries* in the hand and in the head, in all violent fix'd pains which proceed from heat, and especially those of the *Membranes*. He tells us in the same place, that he had seen the *Artery* in the *Ankle*, after a wound there, unite without leaving an *Aneurysm*: and in another<sup>a</sup>, recites a parallel case, where a puncture had been made by mistake in the *Artery* of the *Cubit*; the incision he observes was very small; and for that reason perhaps was the only instance, in which he ever saw this *Artery* close, as it did in *four* days: for in all other accidents of this nature, he always found an *Aneurysm* succeed. He adds an ob-

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<sup>a</sup> Meth. Med. 5. 7.

servation concerning wounds in the Arteries, that they are less dangerous in *Women* and *Boys*: in whom he supposes the coats of these vessels are less stiff, and therefore easier united. Both the methods of Practice we spoke of at first, are very rough and painful, and yet were in frequent use: but this, by the *Lancet* is so easy, that one would be surprised to find, it was scarce ever perform'd amongst the later *Greeks* after his time; as we may see plainly from this Author and *Actuarius*.<sup>b</sup>, it was not. And what may make it still more surprising is, that when the Artery lies superficial, and near a bone, there does not seem much difficulty, and much less any great danger in the Practice. Such a one is the *Temporal* Artery; and therefore some of the moderns have ventured to open it in almost all diseases of the Head, particularly *Hemicranies*. *Parey*<sup>c</sup>, who without

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<sup>b</sup> Meth. Med. 3. 4.

<sup>c</sup> 16. 4.

doubt was a good Practitioner, tells us, how serviceable he found it in this case, not only in a Patient, but in himself, after all other remedies had been tried in vain. And he makes this remark upon it; that he had found by long experience, that the opening an Artery by the Lancet was not so dangerous, as was commonly imagin'd: but that it wou'd consolidate as well as a vein, only with the allowance of a little more time; and he never knew it bleed afresh, if the compress was kept on, as it ought, for *four* days. It is a very extraordinary history, which an author of great credit, *Gesner*<sup>d</sup>, gives us in his Epistles, of a Surgeon at *Zurick*, who having been annually afflicted with a violent *Hemicrany*, was advised by him indeed to open the *Temporal* Artery; but being impatient of his pain, he took his own way of doing it, and cut it transversely himself, from

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which he let out three pints of blood: the pain returning, he repeated the same bold experiment again, and perfectly recover'd. And how practicable an incision is in this Artery, we may be easily convinced by what *Meckeren*<sup>e</sup> relates, that in a dozen times, wherein he performed this operation, he never met with but one accident, which happen'd thorough the carelessness of the Patient, and not thorough any fault in the operator. And the better to secure it after incision, he gives us the description of a very neat and proper bandage, which he always made use of. And it may be remark'd once for all, that *Prosper Alpinus* saw <sup>f</sup> not only the *Temporal* Arteries, but those behind the *Ears*, in the *Forehead*, in the *Ankle*, &c. as commonly opened by the *Ægyptians* in many chronical distempers as veins: and for all inward inflammations they open'd the

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<sup>e</sup> Observ. Chirurg. 38.

<sup>f</sup> Med. Ægypt. 2. 12.

very same Artery which *Galen* did in a like case, that between the thumb and the fore-finger. He relates the manner of their performing this operation, both as to the incision and the bandage: and observes, that among all the instances he was an eye-witness of, he never saw one miscarry, not even so far as to have an *Aneurysm* succeed. Many examples of the same kind may be met with in *Severinus* g.

Thus far as to point of fact. The intentions of opening an Artery are reducible to *derivation* and *revulsion*: tho' I can't see but in every instance, they are intirely design'd for *revulsion*. For example, when the pain is in the *fore-head* or *Coronal* future, does not opening the *occipital* Arteries or those near the ears, as *Antyllus* in *Oribasius* directs, evidently make a *revulsion*; tho' *Severinus* affirms, it causes a *derivation*: when at

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g Chirurg. Effic. 42. 45.



the same time he says, not very consistently with himself, that when the pain is *backward*, opening the *anterior* Artery does *revel*. I shall only observe so much of *revulsion* now, that the effect of it very much consists in its being sudden: while an Artery is bleeding, it is plainly evident to our senses, how much stronger and quicker the *revulsion* must be, than in opening a vein: and by that means how much more liberty is given to vessels, from whence the *revulsion* is made, to exert their natural contractile force and throw off the load which obstructs them, having now no resistance from the blood to contend with. And the *revulsion* is still much stronger, when the blood is *intercepted*, as the case is, when the Artery, which leads to the part affected, is opened: and this is a *revulsion*, which in no instance can be made in opening a *Vein*. But however reasonable this operation may be, the possibility of losing some reputation thorough



rough the carelessness of others, I doubt will hinder its ever coming into vogue : tho' surely it is very hard that a Surgeon must be 'forc'd to guide his skill by considerations, which are intirely foreign to his Art.

The subject naturally leads me to that accident, which happens upon any breach or wound, and sometimes, as has been hinted, upon a small puncture in the Artery, an *Aneurysm*; and here you will find our author has some particulars<sup>b</sup>, omitted by those who wrote before him. For after he has repeated what *Galen* said upon the same argument, he adds some new observations of his own : and makes an accurate distinction between those that arise from an *Anastomosis*, and those which follow upon a *rupture* in the Artery. The former are more oblong and lie deeper, and upon the impression of the finger, make a sort of noise : the

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<sup>b</sup> 6. 40.

other are generally more superficial and rounder, without any such noise attending them; and in both cases he supposes the blood *extravasated*. *Ætius*<sup>i</sup> pronounces *Aneurysms* which are in the *head* and the *throat* desperate, and dissuades the attempting any cure of them; only advises us to apply the Plaster of *Cypress*. The manual operation he confines wholly to *Aneurysms* in the *Arm*. But *Paulus*, tho' he judges it not safe to make any incision in those of the *Armpits*, the *Groin*, or the *Neck*, or indeed any where else if they are large, on account of the bigness of the vessels: yet disagrees with *Ætius* so far, as to think those in the *extreme* parts, the *joints*, and the *head* particularly, proper subjects for Surgery. He describes indeed the operation very exactly, and in each sort of *Aneurysms* he had before taken notice of: after having made the ligatures, he

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<sup>i</sup> 4. 3. 10.

orders the vessel to be divided; and expressly says, we ought to tie the artery not only above the aperture but below it too, as our own Surgeons do now: in both which points of practice the *Dutch* Surgery is notoriously deficient, as we may collect from <sup>k</sup> *Barbette*, and see more at large in *two* cases, the one related by *Ruisch* in his second observation, and the other by *Nuck* in his twenty ninth experiment.

Since I have so often mention'd an *Aneurysm*, give me leave to speak more at large of it; and you may think it perhaps a less impertinent inquiry here, if you reflect, what disputes there have been, what uncertain and precarious accounts have been delivered down to us concerning it. An *Aneurysm* by *Galen*, and we see here by *Paulus*, is described to be a Tumour, which rises from arterial blood extravasated; and that it

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<sup>k</sup> De Venarum ostioliis.



proceeded from a *Rupture* in the coats of the Arteries, was the constant opinion of all the *Greek* and *Arabian* Writers. *Fernelius* was the first, who asserted, that the Artery was only *dilated*, but not burst in an *Aneurysm*. And *Vesalius* seems to be of the same opinion: for *Adolphus Occo* gives us the relation of a patient he had the care of, in conjunction with *Achilles Grasserus*: the case was a Tumour in the back, and that excellent anatomist being called in, soon discover'd what it was by the pulsation, and pronounced it an *Aneurysm*, arising from a *dilatation* of the great Artery. And at the same time he said, that the blood was contained within the coats of it, as 'tis in those of a vein in a *Varix*: that he had found in these swellings sometimes a humour concreted like Ice, or Crystal, sometimes like Suet, and sometimes blood grumous like a *Mola*. Upon dissection, the cavity of the *Aorta* was found vastly distended, and much  
clotted

clotted blood in it, as *Vesalius* had foretold, which gained him a great reputation. That the Arteries are capable of distention, we find often in persons who are poison'd, and in some morbid cases. 'Tis a remarkable instance which *Vidus Vidius* relates, and owns it to be a rare one, of a prodigious intumescency in all the Arteries of the head quite round, so as to resemble large *Varices*. He adds, that *Fallopious* having undertaken to open it, just as he was going to attempt the operation, being discouraged by the bigness of the Tumour, altered his opinion, and would not proceed. But such a distension as this, which spreads itself equally through so many branches, wou'd scarce, I believe, be called an *Aneurysm*, which is a Tumour of a quite different nature, and more circumscribed.

*Sennertus* refining upon the notion of *Fernelius*, and not satisfied with a bare *dilatation*, makes the nature of all *Aneurysms*



*rysms* to consist in a *rupture* of the muscular, or inner-coat of the Artery, while the outer in the mean while remains unbroken. It seems to me very plain, that he borrows this doctrine, tho' he mentions nothing of it, from *Hildanus*, who in express words said the very same thing before him. The case *Hildanus* describes is that of an *Aneurysm*, succeeding upon a *Puncture*: and in that case it may possibly happen, as he conjectures, that the *outer-coat* may upon compression unite, being compos'd of membranous and very glutinous parts, as is evident from all glue being extracted from such skins; but the fibres of the *inner-coat* being muscular, when they are once broken, must of course contract, and shrink up, and by starting from one another, be more difficultly brought to a re-union. And I can scarce think it well conceivable, that any other *Aneurysm* can be form'd in this manner, than that only, and that



that not always, which comes upon a *Puncture*: for it does not seem probable that, when the cause is intrinsical, a force, which is supposed able to burst the inner-coat, should find any resistance from the outer, which is own'd to be at least *five* times weaker. But, however, the notion we have mention'd, though scarce so much as plausible, was embraced by *Willis*, *Barbette*, and others, and became the fashionable definition of an *Aneurysm* for many years. And indeed, since the opinion of the blood being *not extravasated* was first started, it may be observ'd, that all the writers of Bodies either of *Physick*, or *Anatomy*, have run into this *Hypothesis*, without knowing much of the subject they writ upon, or indeed of what they writ upon the subject. To give an example: *Forestus* contends vehemently, that all *Aneurysms* come from a *dilatation* of the Artery: and yet in the very instance, which is the only one in his works, he

gives

gives us of an *Aneurysm*, the tumour came from a *rupture*, and the blood was extravasated. And *Diemerbroek* in complaisance to the doctrine then in fashion, defines an *Aneurysm*, in opposition to Mr. *Regi*, who was for a *rupture* in the Artery: then he tells a story of an *Aneurysm*, where there was a *rupture*, but at last judiciously concludes, that 'twas no *Aneurysm* at all: for no other reason, but because there was a *rupture*, and so consequently did not come within his definition.

The chief arguments, which the assertors of *dilatation* urge, and which those who acknowledge a *rupture* in the Artery are at a loss to answer, are only two: how comes it to pass, if the blood be not confin'd within the coats of the vessels, that there is a *Pulsation* in an *Aneurysm*? how is it, that the blood, if extravasated, does not turn to Pus? As to *Pulsation*, it may I presume be easily conceiv'd, how the constant impulse of  
the



the blood in the Arteries may communicate a motion to that, which lies contiguous to it, though extravasated. The force of percussion is vastly great: and we find by experiment in a bladder full of air, the least fresh impulse from a Syringe will move all that is contain'd in it, and distend its sides. If the Artery is large, if it lies superficial, and near the center of the tumour, and if the *Aneurysm* be not diffused too much lengthways, the *Pulsation* will be strong, though the coat of the Artery be burst. And this may be prov'd not only from reason, but from matter of fact. We have a case in *Severinus*, where, upon a wound in the great Artery of the thigh, there was an effusion of six pounds of blood in the interstices of the muscles; there was so violent a *Pulsation* in the swelling, as to lift up both one's hands, when laid upon it. When the *Aneurysm* lies deep among the muscles, very often the *Pulsation* is not sensible. We  
 may



may add to this, that it may grow more obscure, and at last be utterly extinguished, as the coagulation of the blood increases : and of this we have instances both in *Severinus* and Mr. *Littre*, where the *Pulsation* was very violent at first, and afterwards intirely vanish'd. And therefore we must not look upon this as a constant concomitant in the present case. Indeed in most swellings, we ought rather to argue negatively ; and if we are not sure of *Pus*, we ought always to be suspicious of an *Aneurysm* : and for want of this prudent fear, some have mistaken, and fatally cut it for an *Abscess*. What has been said of *Pulsation* may let us into the solution of the *second* objection : for if we can conceive, how there can be a motion communicated to the Tumour, we may naturally and easily comprehend, how the same motion may preserve the blood from putrefaction, as well as if it were contained in the coats of the Artery, enlarged by

by *distension* only. A very little degree of impulse will serve to hinder a large mass of any fluid from an intire stagnation. Accordingly, in an *Ecchymosis*, the extravasated blood, we see, very often never suppurates, or, when it does, there is some part of it found turn'd to a red *Coagulum*, distinct and separate from the rest, without any mixture of *Pus*. The very case we have already mentioned in *Severinus*, comes up to the purpose: where, after the Tumour had been growing *forty* days, there were taken out of it six pounds of *pure blood*, extravasated between the interstices of the muscles, and it had no sort of tendency to *Pus*. Besides I believe the very position, which these Writers lay down, that all extravasated blood turns to *Pus*, may be justly questioned: what quality 'tis in the blood, or what particles they are, which dispose it to suppuration, is a Problem, I confess, difficult to be solv'd: but sure I am, there is something in *arterial* blood, which



which often hinders it from being changed into *Pus*, though *extravasated*.

Thus we see, how insufficient these arguments made use of are to overthrow the opinion of the ancients: and we shall find that experience it self, from dissections in these cases, generally decides the controversy in their favour. For to return to the very case, where we mentioned *Vesalius* before, (which indeed is the *first* history of an *Aneurysm* dissected, that we meet with) besides a *dilatation* of the Artery, there was a large *rupture*, as *Achilles Grasserus*, one of the Physicians concern'd, gives us an account. *Saporta*, who was contemporary with *Fernelius*, and seems to have him in his eye, tho' he does not mention his name, relates *three* cases with all the particulars, where the Artery was *burst*. The *first* is singled out, and repeated at length by *Sennertus*, who pronounces it to be no *Aneurysm*. Though I can't imagine, why he chose this case to object against, when



when of all the *three* 'twas the most distinct and least liable to objection : for upon dissection, a great deal of pure blood was taken out, and the Artery dilated and *burst* ; and while the patient was alive, the Tumour had a great *Pulsation*, and receded upon pressure. And if this be not a true *Aneurysm*, I can't tell what words can be found out to describe one. *Bartolin* gives us the history of several *Aneurysms* dissected, particularly of one at *Naples*, which he has made the subject of a book, writ indeed in a *Romantick* style, but where the fact is clearly enough delivered. This was in the arm, and happen'd from a puncture : the arm was cut off, but the patient died. The *axillary* Artery was vastly dilated up to the armpit ; it was whole only, where the puncture had been made : on the other side, all the coats were burst, and the branches, which came from it, could not be traced. As it lay superficial, there was grumous blood lying along all the

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tract

tract of the muscles. *Van Horne*, in his epistle, which is printed with this treatise of *Bartolin*, has another very remarkable case: because the instance may suggest to us several *practical* reflections, give me leave just in short to relate the particulars. This was a Tumour in the calf of the leg; *Antonius Vacca* pronounc'd it an *Aneurysm*: others were of a different opinion, and outvoting him prevail'd, and treated it for an *Abscess*. This method made the swelling extend itself to the very toes, and there occasion'd a gangrene: so that they were forced to cut off the foot above the ankle, for fear the mortification should spread up to the thigh. The third day after, they attempted to open the Tumour, and the patient died in the middle of the operation. Tho' the Artery was *dilated*, so as to be *six* times bigger than natural, the side towards the skin was eaten thro', and *burst*; and between the *Gemelli* was a *Parenchyma* of grumous blood, very solid,

solid, and near the consistence of flesh. Somewhat a like case I was an eye-witness to my self, with the Surgeons of *St. Bartholomew's Hospital*: the person was old, and of an ill constitution. The *Aneurysm* had been by his own account twelve years growing, and of late it had increas'd extremely much. It surrond-ed all the calf, almost up to the knee: and the *Pulsation* was very strong, not only along the skin, but upon the muscles, in the thickest part of the calf. The *Valves* of the veins (many of them) were so intirely broken, that there were *Varices* both above and below the knee, of a prodigious bigness, which nevertheless subsided upon holding up the leg. Upon amputation, notwithstanding the ligatures were strong, and the operation performed with great dispatch, there was discharged from the vessels above a pint of blood: the diameters of the Arteries and Veins were so greatly enlarged. In the *Aneurysm*, upon dissection,



were found, besides *fluid blood*, two or three pounds of *Thrombi*, which lay like so many plates upon one another: the whole tract of the *crural* Artery was greatly dilated, and the several little branches were *broken off* from the trunk, not above a quarter of an inch from their rise: and from these the blood was thrown into the interstices of the muscles, the *Gastrocnemii*, neither was there any communication at all from the bottom. The bones were so carious, that there was a great hole in the *Tibia*, and *four* inches at least in the *Fibula* intirely wanting. This circumstance of the bones being carious, often attends an *Aneurysm*: *Ruisch* has two cases, where all the true ribs and the *Sternum* were almost consum'd, and the little, which remained, was all rotten. And we may easily conceive, how such a Tumour, by a constant pressure, may affect the *Periosteum*, and cause an obstruction there, and by that means gradually waste the bone

bone itself. We may learn another thing too from this circumstance, that, since so solid a substance as the *bone* cannot resist the pressure of an *Aneurysm*, the arterial coats may be thought more likely to yield to its force, and have their fibres destroy'd by it. *Lancisi* gives us the history of an *Aneurysm* in the ascending trunk of the *Aorta*, where the patient, who had some time before complain'd of a palpitation, fainting, pain, straitness and beating in the *Thorax*, died suddenly. The upper-part of the *Sternum* was press'd a little outward on one side. Upon dissection, in the whole curvature of the *Aorta* was found a substance, like lard, inclosed in a *Cystis*: there was a hole into the very *Pericardium*, in which accordingly were found two pounds of blood. He is of opinion, that all *Aneurysms* come from a *dilatation* of the Artery, and so very probably at *first* most of them do: yet in the present instance, he speaks of the fibres

being corroded, and from thence accounts for the *dilorication*, as he calls it, of them, in which the true nature of an *Aneurysm* (he says) consists ; that is, in *English* I think, in an *unripping* or *tearing* of the arterial coats. A case exactly like this we find, in *Laurentius*, of *Guicciardin*, where not only the *Cava* and its Valves were all *burst*, but the orifice of the *Aorta* enlarged to the bigness of one's arm. So it was in a like case related by *Parey*<sup>c</sup>; where the *inner-coat* of the Artery, tho' ossified, yet at the same time was *burst*. Certain it is, the *Aorta*, before its bending, is easier dilated, upon the account of the resistance the blood meets with from the curvature there ; and for this reason, *Aneurysms* ofteneft happen in this part of the Artery : and one may easily conceive, that if they can consist in *dilatation* only, it can nowhere else so likely take place, as here.

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<sup>c</sup> lib. 6. 28.



Mr. *Littre* in the *French Memoirs* gives a long, and particular detail of two *Aneurysms* in this place: where the Artery was thrust out so, as to form a sack, which reach'd up into the *Thorax* and neck, and in one case, even along the neck to the lower-jaw. In both these cases, at first the persons complain'd of a beating, which exactly answer'd that of the Arteries, and of an uneasy struggling in the *Thorax*, attended at length with a great oppression, a difficulty of breathing, and an universal languor, sometime before any thing was perceived outwardly above the *Clavicles*: afterwards other symptoms appear'd, much like what I have observed my self in a *parallel* case, such as pain, not only in the chest, but in the shoulders, the arms, and the head; in the last, often a pulsation likewise: very little sleep, and that often interrupted; an inability often to lie down in bed, and always a greater ease in a leaning posture forwards: the brea-

thing sometimes so disturbed, as to give apprehensions of a sudden suffocation. In the first of these instances, some part of the ribs, the *Sternum* and the Clavicles were found carious. A Quack, by suppurating medicines, had made some part of it burst, upon which followed a gangrene, and, in three days, death. Each of these *Aneurysms*, he says, was only a *dilatation* of the Artery : but I must confess, tho' his description be very minute and exact, I have still some scruples upon me, and am not perfectly satisfied, that in this case there was a mere dilatation alone of the arterial coats. For besides that he says himself, there was not only a firm adhesion every where of this *aneurysmal* Pouch to the ribs, the *Sternum*, the Clavicles, and the Muscles, but a *corrosion* of its membranes in all those places, where it adher'd : these membranes, which he attributes to his pouch, might be portions of the *Mediastinum* and the *Pleura*, or expansions of those



those belonging to the muscles. But yet further, it may not be absurd, if, in answer to this, we should affirm, that humours extravasated may form a particular membrane to themselves, which is no part of the vessels, from whence those humours are discharged. What we observe every day of a *Hernia Carnosa*, and *Wens* consisting of a vast number of *Cysts*'s, each of which has its particular membrane, and is filled often with a different sort of substance, may give so much countenance to this opinion, that we may at least think it worth considering, before we determin any thing in this point. The account *Ruisch* gives of an *Aneurysm* in the *Thorax*, which filled the whole cavity of it, without any outward swelling, seems to answer this idea: for it consisted, he says, of innumerable thick coats, which lay like so many plates one over another, between which was inclos'd a great deal of coagulated blood. Thus the blood lay like leaves one upon  
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another, so as to form a sort of *Polypus*, in the case recited by Mr. *Littre*<sup>d</sup>. This is certain, that we may find examples of this kind in *Severinus*, *Marchetti*, and others. Our countryman *Wiseman* tells us, that he always found both coats of the Artery open. In short, as matter of fact is the best argument, I can't but observe, that among all the accounts Anatomists give us of the dissection of an *Aneurysm*, there is scarce an instance upon record, of a large one at least, where there was not a *rupture* in the Artery, according to the Doctrine of *Paulus*. What has been said will, I believe, be sufficient to shew, how ill-founded is that division, which some Moderns\* have made of *Aneurysms*, into *true* and *spurious*; whereas the whole difference lies only in the *form* of the Tumour. And if you consider what they have advanc'd upon this head, you will find

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<sup>d</sup> Memoires de l'Academie 1712.

\* Croissant Garengoet.

that, as this distinction is generally wrong in *Theory*, it signifies still less in point of *Practice*.

We see how conversant *Paulus* was in the most difficult operations of *Surgery*; and as he seems to understand the nature of the cases he treats of, so we shall find him no less well acquainted with the best manner of curing them. I must observe further, that there are some operations he gives an account of, which are neither describ'd, nor recommended by any author now extant before him: one of which is *Bronchotomy*, or opening the wind-pipe in a violent *Quinsy*. The manner of this process he takes from *Antyllus*, which, because it is new and exact, give me leave to transcribe here.

“ Our best Surgeons have described this  
 “ operation: *Antyllus* particularly thus.  
 “ We think this practice useless, and  
 “ not to be attempted, where all the  
 “ Arteries (I suppose he means the bran-

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“ ches of the *Aspera Arteria*) and the  
 “ lungs are affected; but when the in-  
 “ flammation lies chiefly about the  
 “ throat, the chin, and the tonsils, which  
 “ cover the top of the wind-pipe, and  
 “ the artery is unaffected, this experi-  
 “ ment is very rational, to prevent the  
 “ danger of suffocation. When we pro-  
 “ ceed to perform it, we must cut tho-  
 “ rough some part of the wind-pipe,  
 “ below the *Larynx*, about the third or  
 “ fourth ring: for to cut quite tho-  
 “ rough wou'd be dangerous. This  
 “ place is the most commodious, be-  
 “ cause it is not cover'd with any flesh,  
 “ and because it has no vessels near it.  
 “ Therefore bending the head of the pa-  
 “ tient backward, so that the wind-pipe  
 “ may come more forward to the view,  
 “ we make a transverse section between  
 “ two of the rings: so that in this case  
 “ not the cartilage, but the membrane,  
 “ which encloses and unites the carti-  
 “ lages together, is divided. If the  
 “ ope-



“ operator be a little fearful, he may first  
 “ divide the skin, extended by a hook :  
 “ then proceeding to the pipe, and se-  
 “ parating the vessels, if any are in the  
 “ way, he must make the incision.  
 Thus far *Antyllus*. *Paulus* adds, “ That  
 “ he (*Antyllus*) thought upon this way  
 “ of cutting, by observing (when it was  
 “ I suppose cut by chance) that the air  
 “ rush’d thorough it with great violence,  
 “ and that the voice was interrupted.  
 “ When the danger of suffocation is  
 “ over, the lips of the wounds must be  
 “ united by future, (*i. e.*) by sowing the  
 “ skin, and not the cartilage; then pro-  
 “ per vulnerary medicines to be appli-  
 “ ed. If these do not agglutinate, an  
 “ incarnant must be used. The same  
 “ method must be pursued with those,  
 “ who cut their throat, with a design of  
 “ murdering themselves.” The opera-  
 tion we see is very clearly described, and  
 some observations extremely proper are  
 made

made upon it. *C. Aurelianus*<sup>f</sup>, ridicules this operation as fabulous, and as never practiced by any of the ancients, and says, 'tis only a rash invention of *Asclepiades*. *Aretæus* mentions it too, but thinks it not warranted by experience<sup>g</sup>;  
 “ That the wound would endanger an  
 “ inflammation, cough, and strangling.  
 “ And if the danger of being choak'd  
 “ could be avoided by this method, yet  
 “ the parts would not heal, as being car-  
 “ tilaginous.” But *Paulus*, I think, answers these objections; and it is certain, that some of the moderns have attempted this practice with success, however in general it is still reckoned a dangerous undertaking\*.

*Purman* tells us he perform'd this operation in one<sup>b</sup> who had a violent inflammation and swelling in his throat, so that he was in danger of being choaked. The

<sup>f</sup> *Acut.* 3, 4.

<sup>g</sup> *Acut.* 1, 7.

<sup>b</sup> *Chirurg. Curios.* lib. 1, 16.

\* *Garengoet.*

patient who had lost his speech and understanding, quickly after recovered both. And a Surgeon of great experience and integrity has inform'd me, that he has tried the experiment himself: he did it without any previous apparatus, and without so much as dividing the skin; only cut between two of the rings with an incision-knife, and then introduced a small *Spatula*, after which he made use of a hollow tent; and the patient, who was then judg'd to be in the utmost extremity, soon recover'd and liv'd many years after.

*Albucasis*, an *Arabian* Surgeon of good experience, as you will see hereafter, transcribes the manner of this operation from *Paulus*, without mentioning him: and thinks it may be done without any hazard, tho' he had never seen it performed. What mov'd him the more to be of this opinion, was the case of a Woman, who had cut her throat, who made a noise and groan'd as if in the  
 agony



agony of death : he found the air came out at the wound, and that she had not cut the *Jugular* veins : so he quickly cured her, and no disorder remained besides a hoarseness. *Gulielmus de Saliceto*, no contemptible author for his time, confirms the practice by his own experience, and relates *four* cases much of the same nature with this. There is a like remarkable instance too in the *Philosophical Transactions*.

Another operation, never described before, is taking off the breasts in men, when they grow, as they sometimes do, to any immoderate bigness<sup>i</sup>. In this case a good deal of fat, he says, grows underneath, and resembles a Woman's breast ; and therefore ought to be removed by the hand of a Surgeon. The process runs thus. “ A lunar Section  
 “ must be made in the lower part of  
 “ the breast ; and after the fat is taken

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<sup>i</sup> 6, 46,

“ out, the skin is to be sow’d together.  
 “ If it is very prominent and hangs over  
 “ as in Women, there must be two  
 “ lunar sections made, meeting one an-  
 “ other at their extremities ; and when  
 “ the fat and skin are remov’d, the  
 “ Wound is to be sow’d up. And if any  
 “ thing be left behind, the operation is  
 “ to be repeated a third time.” *Fabri-*  
*cus ab Acquapendente*<sup>k</sup> calls this method  
 cruel and barbarous, and exceeding all  
 admiration : and he would fain find out  
 some use in these excrescencies ; which, as  
 he says, are only observ’d in those, who  
 have no hair upon their breasts : and  
 therefore perhaps more necessary to che-  
 rish and warm the heart. I will not dis-  
 pute but the operation may be very se-  
 vere ; however it seems to be the only  
 remedy in such a case, if it is to be cur’d  
 at all. And one may I believe venture  
 to say, that his gentle way of treating

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<sup>k</sup> Operat. Chirurg. p. 1, 50.

it with a *Lixivial* expression of *Lime*, will have little or no effect towards removing the excrescency.

I flatter my self you won't think me impertinent for taking up so much of your time, in observing some particularities out of these old Authors, which our physical Memorialists take no manner of notice of: an argument, that they either did not read their Writings at all, or that they read them in so careless a manner, as to make no use of them. And as to the subject I have been just now speaking of, the *Surgery of Paulus*, it has been the foundation of the treatises in that faculty from his own time, down to this day: nay too many have only just transcrib'd him, and some only transform'd him into another dress. I shall only add this remark, that *Fabricius ab Acquapendente*, an old experienc'd and celebrated Surgeon, and who has describ'd the process of manual operations the best of any modern, lays down  
every



every where the doctrine of *Celsus*, and *Paulus* for his text: and his inferences, and observations consist chiefly in explaining these two Writers. And yet there are many, who are so prejudiced as to think, that there is nothing, but what is common, or scarce worth taking notice of in *Paulus*; and that *Celsus* himself never practiced any operation in Surgery. *Salmasius* indeed gives the latter the severe epithet of *Ἀνὰ τε λόγῳ καὶ ἔργῳ*, a man ignorant of medicine: but I hope we may have the liberty to dissent from this great critick in a point of Physick. As to *Paulus*, I imagine I have said enough of him to give him his true character. *Celsus* surely, if he had been no practitioner, would never have used this expression in relating the manner, in which *Heraclides* chose to treat an *Ἀγκυλοβλέφαρον*, <sup>1</sup> *Ego sic restitutum esse neminem memini*: besides several other pas-

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sages to the same purpose. Wou'd he write so at *Rome*, where it must be notorious, whether he really practiced or no? or can it be conceived any man could write so exactly upon a subject, and especially so nice and difficult a one as that of Surgery, even tho' we suppos'd he was a translator only, without ever being vers'd in the practice of it? but vers'd he must be, in some measure; else he must have stolen every word he wrote from some other author. The very reading the single chapter concerning a fracture of the skull may easily convince us, that he made those nice remarks of a *Contra-fissure* from his own experience. And tho' some dispute whether there can be a *Contra-fissure*, I see no reason to think it an improbable thing, if the futures are very close or obliterated, as frequently is the case, especially in old persons. The objection that he wrote well upon other subjects, as *Rhetorick*, &c. and took Physick in,  
only

only as a part of a greater Work, is a very strange one : as if it were not more probable, that a Physician should write well of rhetorick, or any other art, than that a mere rhetorician should be able to write with judgment and propriety of Physick.

I might easily shew more at large to what a height the Art of *Surgery* was advanced in these early times, as it stands in the works of these and the other ancient Writers : but I shall choose to close this head in the Words of one, who was much a better judge of this argument, and who by his great learning and experience<sup>m</sup> was an honour both to his faculty, and his country. “ If we en-  
 “ quire, says he, into the improve-  
 “ ments which have been made by the  
 “ moderns in Surgery, we shall be for-  
 “ ced to confess, that we have so little  
 “ reason to value our selves beyond the

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<sup>m</sup> Mr. C. Bernard.



“ ancients, or to be tempted to contemn  
 “ them, as the fashion is among those who  
 “ know little, and have read nothing, that  
 “ we cannot give stronger or more con-  
 “ vincing proofs of our own ignorance,  
 “ as well as our pride. I do not pre-  
 “ tend that the moderns have not at all  
 “ contributed towards the improvement  
 “ of Surgery; that were both absurd  
 “ and injurious, and would argue as  
 “ much folly as that which I am re-  
 “ proaching: but that which I am con-  
 “ testing for, is, that it consists rather  
 “ in refining and dressing up the in-  
 “ ventions of the ancients, and setting  
 “ them in a better light, than in ad-  
 “ ding many important one’s of our  
 “ own. Whether it be, that the art  
 “ of healing external hurts, being prin-  
 “ cipally the subject of our senses, was  
 “ earlier studied, and therefore capable  
 “ of being sooner brought to a greater  
 “ degree of perfection, than the other  
 “ branch of Medicine; or, that the  
 “ ma-

“ majority of the meer professors ha-  
 “ ving been, for some ages, illiterate  
 “ and empirical, it hath not been ad-  
 “ vanced and cultivated so as it might  
 “ have been, had they been better qua-  
 “ lified than they generally were, and  
 “ do yet, for the greatest part continue  
 “ to be : for a testimony of which,  
 “ that exceeding paucity of good Wri-  
 “ ters, which occur in Surgery, when  
 “ compar’d with those in most of the  
 “ other learned Arts and Sciences, is,  
 “ in my opinion, sufficient ; and yet,  
 “ were they fewer, ’twould, in the judg-  
 “ ment of these *Scioli*, be no great de-  
 “ triment to the Art. For the folly of  
 “ which assertion, the best excuse that  
 “ can be made, seems to be, that be-  
 “ cause some methods of proceeding  
 “ both in Physick and Surgery, which  
 “ are incommunicable, and to which  
 “ every man must be directed by his  
 “ own judgment, and natural sagacity,  
 “ not being to be found in these authors,

“ whom these opinionated practitioners  
 “ have had the luck to consult, they are  
 “ led immediately to despise all reading,  
 “ as useless and uninstruative; especial-  
 “ ly that of the ancients, who do not  
 “ generally, I confess, write to novi-  
 “ tiates and fools, or to those who will  
 “ be always such.

“ But whoever hath been conversant  
 “ in their Writings, and hath the op-  
 “ portunity and capacity of comparing  
 “ and judging from his own experience,  
 “ will readily confess, that one thing,  
 “ which does not a little recommend  
 “ the reading of them beyond most of  
 “ the moderns, is, that they are more  
 “ accurate in describing the *Pathogno-*  
 “ *monics*, and more just and nice in  
 “ distinguishing the species of Tumors  
 “ and Ulcers, than our more refined  
 “ moderns are.

“ If this age hath par'd away any  
 “ rude and superfluous methods of pra-  
 “ ctice, as it must be confess'd they have,

“ it



“ it cannot be demonstrated that they  
 “ were all derived from the ancients,  
 “ but were in a great measure introdu-  
 “ ced by ignorant and barbarous pro-  
 “ fessors of a much later date.

“ There is no question, but that the  
 “ principal improvements, which have  
 “ these latter ages been made in Surge-  
 “ ry, are owing chiefly to the discove-  
 “ ries, which have been made in *Ana-*  
 “ *tomy*, by which we are better enabled  
 “ to solve many of those *Phænomena*  
 “ which were before inexplicable, or  
 “ explain'd amiss; the most important  
 “ part, in the mean while (I mean the  
 “ Art of healing, to which all the others  
 “ ought to be subservient) remaining  
 “ very little better than the ancients left  
 “ it.

“ As an uncontestable proof of what  
 “ I say, I appeal to all those bodies of  
 “ Surgery, which have been hitherto  
 “ published, by the most learned and  
 “ celebrated of the moderns, being all  
 “ mani-

“ manifestly transcripts from one an-  
 “ other, and the best of them from the  
 “ ancients. But this may indeed be said  
 “ in defence of the moderns in this par-  
 “ ticular, that even transcribing is not  
 “ their invention, though it be their  
 “ practice; for *Ætius* and *Ægineta* have  
 “ borrowed not a little of what they  
 “ have, from *Galen*; and *Marcellus Em-*  
 “ *piricus* more grossly from *Scribonius*  
 “ *Largus*, without so much as remem-  
 “ bring his name among the rest of those  
 “ authors, to whom he was less be-  
 “ holden.

“ Among all the systematical Wri-  
 “ ters, I think there are very few, who  
 “ refuse the preference to *Hieron. Fabricius ab Acquapendente*, as a person of  
 “ unquestioned learning and judgment;  
 “ and yet is not he ashamed to let his  
 “ readers know, that *Celsus* among the  
 “ *Latins* (who, he tells us, is *Mirabilis*  
 “ *in omnibus*, and advises, in *Horace's*  
 “ Words, *Nocturnâ versare manu, ver-*  
 “ *sare*

“ *sare diurnâ*) *Paulus Ægineta* among  
 “ the *Greeks*, and *Albucasis* among the  
 “ *Arabians* (whom I am unwilling to  
 “ place among the moderns, being in  
 “ the number of those whom our mo-  
 “ dern judges reject, either because they  
 “ never read him, or because he had the  
 “ misfortune to live *six* hundred years  
 “ since) are the triumvirate to whom  
 “ he principally stands indebted, for  
 “ the assistance he receiv’d from them,  
 “ in composing his excellent book.

“ But how many operations are there  
 “ now in use, which were unknown to  
 “ the ancients? I fear, that upon a due  
 “ enquiry, there would be more useful  
 “ one’s found to be omitted or discon-  
 “ tinued, than to have been invented  
 “ by us.”

Thus I have given you some little de-  
 tail (for much more might be said) of  
 these four *Greek* Writers: by which short  
 sketch you will observe, that Mr. *le Clerc*  
 might have found some materials in  
 them



them as important, and as much untouch'd by others, as several, which he has largely commented upon, and which he met with chiefly in those, who wrote in the interval between *Hippocrates* and *Galen*.

And here indeed closes the period of the *Greek Classical Physicians*: so I must call them. For if we compare any of the *Greek Writers* in our faculty, from the very first of them, *Hippocrates*, to the time we are now speaking of, with the very best of their contemporaries of any Art or Profession whatever, they will be found not at all inferior to them either in the disposition of their matter, the clearness of their reasoning, or the propriety of their language. Some of them have even written above the standard of the age they liv'd in; an incontestable instance of which is *Aretæus*. Nay the very *Sophists*, who before, and after *Adrian's* reign, swarm'd not only at *Rome*, but along the *Asiatick* coast, and

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employ'd their whole study in imitating the elegance, at least the diction of the old *Greek* Writers, have not out-done *Galen*, and some of his successors, if we consider them in regard to their style only. *Galen* himself was not only the best Physician, but the best Scholar and Critick of his time. So great an honour have these authors done to their profession, by being versed in other Arts and Sciences, as well as their own. And I may venture to say, that the great *St. Basil*, whom his own continual illness made a Physician, and who has a great many allusions and similes taken from that Art, was (to use the Words of *Photius*) for the neatness, the propriety, the perspicuity, and fluency of his style, one of the best Writers among the Fathers; as *St. Luke's Greek* comes nearer to the ancient standard, than that of the other *Evangelists*. For tho' *St. Luke* has some mixture of *Hellenisms* and the *Syriack* phrase, which may be easily allowed in one that

was

was born a *Syrian*, and was probably converted by the *Hellenists*<sup>n</sup>; yet the reading the *Greek* authors, while he studied *Physick*, made his language without dispute more exact. His style sometimes is very flowing and florid, as when he describes the voyage of *St. Paul*. *St. Luke* indeed in his profession as a Physician, and no doubt merely because he was one, when there is occasion to speak of distempers or the *cure* of them, makes use of Words more proper for the subject than the others do. Many instances of this might be given; I shall content myself with one or two. The person seiz'd with a *Palsy* is here with great propriety called παραλελυμέν<sup>o</sup>, but by *St. Matthew*<sup>p</sup> and *St. Mark*<sup>q</sup> παραλυτικός, a word never used by the ancient *Greek* Writers. The Woman, who had the *Issue of Blood* is described by *St. Mark*<sup>r</sup>, as παθούσα ὑπὸ πολλῶν ἰατρῶν καὶ δαπανήσουσα τὰ περὶ ἑαυτῆς, καὶ

<sup>n</sup> Vid. Grotium in Titul.

<sup>e</sup> 5. 18.

<sup>p</sup> 9. 2.

<sup>q</sup> 2. 3.

<sup>r</sup> 5. 26.



μηδὲν ὠφελεθεῖσαι, ἀλλὰ μᾶλλον εἰς τὸ χεῖρον ἐλθῆσαι. St. *Matthew*<sup>f</sup> omits all these particulars; but St. *Luke*, tho' he does mention them, gives them quite another turn, and softens the passage very much in regard to his faculty, and instead of relating how much she *suffered* by the several Physicians, or how she grew *worse* upon her remedies, he says only that her distemper was above the reach of any of them to remove it; ἐκ ἰχυσεν ἀπ' ἐδενὸς θεραπευθῆναι<sup>t</sup>. And you may observe, that when he comes to speak of the charges the Woman had been at, he uses a very proper expression περσυναλώσα, whereas the Word δαπανήσαι us'd by St. *Mark*, properly signifies *spending* only in a riotous and luxurious manner; and so St. *Luke* applies it<sup>u</sup> in the case of the *prodigal* son. Thus in setting down the cure of the same Woman, St. *Matthew* says only

<sup>f</sup> 9. 20.<sup>t</sup> 8. 43.<sup>u</sup> 15. 14.

ἰσώθη; *St. Mark*, imitating the *Hebrew* phrase, expresses it by ἐξηράνθη ἡ πηγὴ τοῦ αἵματος: the language of *St. Luke* is more simple and more correct, as well as more *Physical*, ἔστη ἡ πύσις. When our Saviour *heal'd* those, that were brought to him, of their diseases, the expression in *St. Matthew* is διασώθησαν<sup>x</sup>, and in *St. Mark* ἐσώζοντο<sup>y</sup>; but *St. Luke* uses the Word that is peculiarly proper for healing<sup>z</sup>, ἰάτο πάντα. So when *St. Matthew* says the *Centurion's* Servant was *cur'd*<sup>a</sup>, *St. Luke* tells us, that they found him not only *recover'd*, but ὑγιαίνοντα<sup>b</sup>, in perfect health, which shews the cure still more effectual. In like manner in describing the young maiden that was raised from the dead, upon our Saviour's speaking the word, he says<sup>c</sup> ἐπέσρεψε τὸ πνεῦμα, which he puts in, no doubt, as being the *first sign of coming to life*. The same accuracy of expression he observes

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<sup>x</sup> 14. 36.
<sup>y</sup> 6. 56.<sup>z</sup> 6. 19.<sup>a</sup> 8. 13.<sup>b</sup> 7. 10.<sup>c</sup> 8. 55.

we may see in regard to the *lame*<sup>d</sup>. It is remarkable, that St. *Luke* is more particular in reciting all the miracles of our Saviour, in relation to *healing*, than the other *Evangelists* are; and that he gives us one history<sup>e</sup>, which is omitted by the rest, that of raising the Widow's son at *Nain*.

The character here given is no more, than is due to the *Greek* Physicians: the *Latin* Writers have ill copied this example; if we except *Celsus*, and *Pliny*, the last of which has touch'd upon some parts of physical knowledge, who is there else, whom one can read with any patience? *Scribonius Largus*, who cannot well be even reckon'd any more than a mere *Empirick*, tho' he wrote in the time of the first *Claudius*, when the *Roman* language was in some tolerable degree of purity, ought, as I may say, to be translated into *Latin*, in order to be understood by those, who are conversant only with the *Classicks* of that age.

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<sup>d</sup> Acts 3. 7.

<sup>e</sup> 7. 11.



*Lionardo di Capoa*, in the fantastical discourses which he calls *Reasonings*, hints more than once, that the *Greeks* made but a small progress in *Physick*, and added very little to it, besides dressing it in good language. But surely nothing can be more clearly prov'd from all history, than that they were the first, who reduced *Physick* into any Art or Science: and that ever since their time to this very day, in all parts of the World, where the *Græcian* *Physick* is unknown, there is nothing to be met with but the *Empirical* way of curing. He might with as much reason have denied them the merit of bringing Poetry, Oratory, Sculpture or Painting to perfection. This treatise I think is one of the most unaccountable I ever read: the author has shewn us, that he had a good deal of scatter'd learning, and that at the same time he did not want talents to abuse it, by giving an ill turn to every thing he read. How much the art of

*Physick*

Phyſick was improv'd, poliſh'd and perfected by the *Greeks*, has been accurately explain'd by Mr. *le Clerk*; and I ſha'n't here miſpend my time or yours, in arguing with a Writer, who ſeems to know ſo little of the ſolid part of this Profeſſion, that he will ſcarce allow it to be any Art at all. Nay, he is ſo ridiculous, as to quote *Sextus Empiricus*, the famous *Sceptick*, for one of the authors<sup>f</sup>, who was apprized of the *Uncertainty* of Phyſick: whoſe very principle it was, to allow no manner of *Certainty* in any thing, not even in a *Mathematical Demonſtration*.

I cannot omit ſaying ſomething of one Author more, whom we may reckon one of the ancients, tho' not properly a Writer in Phyſick, *Nemeſius*, Biſhop of *Emiſſa*, who wrote a treatiſe concerning the *Nature of Man*, near the end of the *fourth Century*: becauſe the *Oxford* editor aſcribes two diſcoveries to

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<sup>f</sup> 464.

him, one of which was the most considerable, that ever was made in Physick. The first is concerning the *Bile* g,  
 “ which is constituted, as *Nemesius* says,  
 “ not only for it self, but for other  
 “ purposes : for it helps digestion, and  
 “ contributes to the expulsion of the  
 “ excrements ; and therefore it is in a  
 “ manner one of the nourishing powers :  
 “ besides, as a vital faculty, it imparts  
 “ a sort of heat to the body. And  
 “ for these reasons it seems to be made  
 “ for it self : but because it purges the  
 “ blood, it seems to be form’d for the  
 “ sake of the blood.” Here, says the  
 Editor, the system of the *Bile* is plainly  
 and accurately deliver’d ; that very  
 system, which *Sylvius de le Boe* with so  
 much vanity boasted he had invented  
 himself. And indeed so far is true,  
 that here is the intire foundation of  
*Sylvius’s* reasoning : and if this Theory

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be of any use in Physick, *Nemesius* has I think a very good title to the discovery. But there follows a much more material point ; and the Editor contends, that the *circulation* of the blood, an invention which the last century so much bragg'd of, was known to *Nemesius*, and described in very plain and significant terms, which are these. “ The motion of the pulse<sup>b</sup> takes its rise from the heart, and chiefly from the left ventricle of it: the artery is with great vehemence dilated and contracted, by a sort of constant harmony and order. While it is dilated, it draws the thinner part of the blood from the next veins, the exhalation or vapour of which blood is made the aliment for the vital spirit. But while it is contracted, it exhales whatever fumes it has thorough the whole body, and by secret passages. So that the heart

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<sup>b</sup> cap. 24.

“ throws out whatever is fuliginous  
 “ thorough the mouth, and the nose  
 “ by expiration.”

Upon this single slender proof does he attribute this great discovery of the *circulation* to *Nemefius*; and those who have insisted, that it was known both to *Hippocrates* and *Galen*, have full as good arguments on their side. I will only say this, that from this very description, and from what the same author says of the *Liver* in the same chapter, that it ministers nourishment to the body by the veins, one may demonstrably infer, that *Nemefius* had no Idea of the manner, in which the circulation of the blood is perform'd.

I will not enter into a dispute upon this head; but shall only content myself with observing, that the true circulation was not at all rightly understood by a much later Writer, and that a very elegant and accurate one, *Columbus*: who, as he was an excellent *Anatomist*,  
 above



above one hundred and fifty years ago, with the nicest exactness, explain'd not only the *structure*, but the *use* too of every part belonging to the heart, excepting a little mistake about some of the *Valves* : and did in as clear a manner, as words could express, shew, how by the contraction and dilatation of the heart and mechanism of its vessels, the blood circulates thorough the lungs from the *Cava* to the *Aorta*, (no body, as he says himself, having either observ'd this, or written any thing of it) and from thence into all the parts of the body. In his language (as to the sense, much indeed the same as we find in *Servetus*, a contemporary Writer, tho' much more fully explain'd) the lungs are for generating vital-spirits, and this he describes in the following expressions. “ i The  
 “ Wind-pipe diffuses the air into  
 “ all parts of the lungs: the lungs

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 i lib. 7.



“ mix this air with the blood, which  
 “ comes from the right ventricle of the  
 “ heart by the pulmonary artery. The  
 “ blood by this continual motion of  
 “ the lungs is agitated, attenuated, and  
 “ mingled with the air, which air it  
 “ self by this collision and rarefaction  
 “ is so prepar’d, that both the blood  
 “ and air mix’d together, are taken in  
 “ by the branches of the pulmonary  
 “ vein, and thorough its trunk convey’d  
 “ to the left ventricle of the heart; and  
 “ they are convey’d hither so well mix-  
 “ ed and attenuated, that there’s little  
 “ more left to do for the heart: there-  
 “ fore after a little further elaboration  
 “ here, which gives as it were the last  
 “ hand to the vital spirits, there re-  
 “ mains nothing else than that the heart,  
 “ by the help of the *Aorta*, should throw  
 “ and distribute the blood into all the  
 “ parts of the body.” This is literally  
 the sense of this inquisitive Anatomist,  
 and we see how exactly consonant to  
 truth

truth his doctrine is : only he stops short here, and does not at all explain, how the blood flows from the arteries to the veins. Nay, it is evident from what he says in several places of those vessels, that he did not in the least comprehend any communication between them. For besides that he assigns the carrying of vital spirits only to the arteries, in another discourse he tells us, that the veins convey the blood from the liver, to all the parts of the body. And in this point chiefly, that is the intercourse between the arteries and the veins, is his doctrine of the circulation deficient : however little it has been understood by those who have writ for, or against *Harvey*. *Cæsalpinus* indeed drops the word *Anastomosis*<sup>k</sup> (copying perhaps from *Servetus*, whose word it is<sup>l</sup>) by which he supposes the native heat may pass from the arteries to the veins ; but this in

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<sup>k</sup> Quæst. Perip.

<sup>l</sup> De Trinitat. 5.



the time of sleep only : and from the sentence immediately following 'tis plain, that he had no notion of the circular progress of the blood ; for he makes it only move like an *Euripus*, the very word he uses, in a sort of undulating motion from one extremity of the vessel to the other, which is indeed the very idea *Hippocrates* himself had of the motion of the blood : and *Acquapendente* in direct terms describes the blood as circulating by way of *flux* and *reflux* in the *arteries*. Were we indeed to reason from what these Writers say, concerning the circulation of the blood, both through the heart and through the lungs into the *Aorta*, the conclusion must demonstrably be, that the blood which goes into the *Aorta* must return back into the *Cava* : else how could the constant current, which by their own account runs thorough the heart and lungs, be maintained ? but 'tis as demonstrable, that they did not perceive this consequence, which



which naturally and necessarily follows from their own principles. Neither is this so much to be wonder'd at: for *Columbus* and *Cæsalpinus* might as well go so far, and no farther, as that *Acquapendente* could discover and describe the *Valves* of the veins, and yet be at the same time ignorant of the true use of them<sup>m</sup>: as it is very plain he was, from his own description of them.

As this great discovery was entirely owing to our countryman, so he has explain'd it with all the clearness imaginable: and though much has been since written upon that subject, I may venture to say his own book is the shortest, the plainest, and the most convincing of any: as we may be satisfied if we look into the many apologies written in defence of the circulation, or have the patience to read the tedious un-

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<sup>m</sup> De Venarum Offioliis.

instructive treatise of *Raymond Vieussens*<sup>n</sup>.

This new doctrine of the *Circulation*, however proved beyond all doubt in a demonstrative way, met with great opposition: and the inventor of it was obliged to bear the attack of numberless adversaries; who generally in their answers shew'd more a spirit of contradiction, than any force of reasoning. The learned *Gassendus* indeed acted very differently, and behaved with that ingenuity, which became a Scholar; and tho' he had formerly very strenuously denied the *Circulation* and the communication of the chyle with the blood, yet at last was convinced of his error by *Pecquet*, the discoverer of the receptacle of the *Chyle*, and the tracer out of the *Thoracick duct* in a human body: and as soon as he was convinc'd, he express'd great joy, that, dying as he

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<sup>n</sup> De Sanguine & corde.



was, he had come to the knowledge of these *two* important discoveries : adding, that he look'd upon these *two* truths, which prove one another, as the two Poles, upon which all Physick for the future ought to turn.

From this discovery of our great Countryman many improvements, even in the cure of distempers, might be made : he had thoughts of composing such a Work himself, to shew the advantages of this doctrine, in relation to practice, but was prevented by sickness and death : the design of the Architect was very noble, and I with some of his successors might finish it. At present I shall hint only at two or three particulars, which will convince us, of what use a perfect knowledge of the circulation may be to us, if rightly applied, in the practical part of our profession.

For instance, this doctrine will let us see the reasonableness of tying up the arteries in *Amputations*, as it is  
pra-



practiced now by our Surgeons, and how much preferable this method is to that old painful and cruel one of stopping the blood by *Cauteries*, *Cautsticks*, or *Escharotics* alone. Besides avoiding an extreme torment in this case, we know that the blood, by the laws of its motion, must continually bound against the *Eschar* of the divided vessel with such a force, as nothing besides a ligature can well resist. The invention of this method was owing to *Parey*<sup>o</sup>, who, as he says himself, had never either seen or heard of its being practiced before, but had taken the hint of it from a passage in *Galen* concerning Wounds, and made the experiment of it with such success, that he thinks it came into his head by *Inspiration*. And no doubt, without inspiration, if we would revolve often in our thoughts what the ancient Physicians have written upon any

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<sup>o</sup> lib. x. 24.

particular subject, new hints would occur to us not only in relation to that very case, but what may be applied, as in this instance from *Parey*, to some other. This practice of *Parey* was indeed before the discovery of the circulation; but yet I question whether or no it would have been so much in vogue, did not this doctrine evidently convince men of the usefulness of it: as we may have leave to infer from observing, that 'twas a practice but slowly received in several countries, nay even in *France* it self, if we may judge by *Vigierius's*<sup>p</sup> account of it; and but of late years revived, or rather introduced among ourselves. However the *Germans* are but little acquainted with it; *Hildanus*<sup>q</sup> himself speaks but slightly of it; and the *Dutch*, as *Nuck*<sup>r</sup> informs us, intirely reject it.

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<sup>p</sup> Chirurg. p. 39.

<sup>q</sup> De Gangran. 8. 4.

<sup>r</sup> Experim. Chirurg. 49.

This doctrine likewise explains to us, how upon amputation, when the trunk of the artery is cut off, the course of the blood is nevertheless preserved: the lesser arterial branches in this case supply the defect, and by distending themselves gradually to a greater dimension, are able to furnish those parts with what is necessary for motion and nourishment. A Problem, which can never be solv'd by any other principles than those of the circulation; and is so far from being an objection, as some ignorant Writers make it, against this doctrine, that it is one, and not the least, demonstrative proof of it.

Once more, this doctrine at first sight shews us the true method, (as 'tis now practiced amongst our own Surgeons, who yield to none either in their skill of Anatomy, or the ancient Surgery,) of treating *Aneurysms*, which arise upon a puncture: how instead of using compression, which seldom stops the current

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rent in the artery, we ought, after having made proper ligatures, to divide the vessel: and that we ought not only to tie the artery above the puncture, but below it too, as in the case of a *Varix*; in order to hinder any supply of blood from other branches, which every where almost in the body communicate with one another. It has been observed before, that the practice of another nation is very defective in this point.

*Galen*, and all who follow him, order that *revulsion* should be always made on the *same* side, because it may be greater: and the reason they give for it, if it be reason, is because there is a greater consent of the parts on the right side with the right veins, and of the left with the left. Accordingly for many years, for almost *two* centuries, 'twas as warm a controversy as ever was in Physick, whether in a *Pleurisy*, a vein should be opened on the *same* or on the *opposite* side. I mention this chiefly to shew, that they

had no true notion of *revulsion*, before the circulation was demonstrated, whatever some injudicious zealots for the ancients would pretend; and indeed 'tis impossible to understand any thing of this doctrine without a knowledge of the circulation. This in one moment lets us see, where the strongest revulsion may be made; and as to the manner of bleeding mention'd in a *Pleurisy*, it shews us, that bleeding on the *same* side, does indeed somewhat more immediately revell, but that at the same time the difference is so minute, that one wou'd wonder there ever cou'd have been any dispute about it. I may add in regard to bleeding in general, that the Circulation has quite confounded and superseded all those rules, which had been before with so much pains and formality laid down, as to opening, in particular cases, this or that vein: and tho' the ignorant part of the faculty has lost a good pretence of driving on this way a trade in Physick, and  
of



of making a mystery, where there is none; those surely who understand their profession must acknowledge, that they have this advantage at least from the Circulation, of knowing exactly how indifferent it often is, which vein is made choice of; or, if there be any preference, of judging without any hesitation, which vein to choose.

But to resume the thread of my history, I must come now to some other *Greek* writers in Physick of a lower rank, and a later date: but as the greatest part of these contain little that is new, I shall content my self with giving a very short account of their works, and only be as particular as I can, in adjusting their several *ages*; concerning which, I think, all our authors have left us in great confusion. Tho' indeed this is the less to be wondered at, considering that from the time of *Agathias*, that is from five hundred and sixty to the reign of *Isaac Comnenus* in one thousand and sixty, there is a



chasm of *five hundred* years in the *Græcian* history ; so that we know very little of all that interval, except what some slender account of the reigns of a few Emperors, chiefly *Mauritius* and *Heraclius*, furnishes us with.

*Palladius*, call'd *Sophist* or *Ætiosophist*, was bred, as he himself seems to hint, at *Alexandria*. I place him first among the more modern *Greeks*, but cannot agree with a late learned author who computes, that he flourished about the year one hundred and twenty-six\*. *St. Albinus* ghessees better at the age of *Palladius*, in ranking him after *Galen*, *i. e.* after the year two hundred : tho' *Albinus* is guilty of a great oversight in this matter, for he says in his Preface to the Translation, which he has given us of the Commentaries of *Palladius* upon *Hippocrates's* book concerning *Fractures*, that he thinks it is *probable*, this author liv'd after *Galen*, since *Galen* does not mention him ;

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\* Biblioth. Literar. N. 2.

whereas he might have been satisfy'd from his own translation, that it is *certain*: for there *Palladius* quotes *Galen*. Indeed he not only mentions *Galen* here, but in his other works very often: and it may be prov'd, that he lived not only after *Galen*, but after *Ætius* and *Alexander* too, whose words, as we shall see, he makes use of.

The commentaries upon *Fractions* are imperfect: however, what of them remains is enough to let us see, that we have no great loss by it: the Text being as full and as instructive as the Annotations. Those upon the *sixth* of the *Epidemics* go no farther than the *seventh* Section; the rest, which included the *eighth*, being lost. In these he with great perspicuity and exactness, illustrates not only *Hippocrates*, but several passages of *Galen*: and observes particularly that the *Stone* increas'd much in his time, and was less curable; and he imputes this to the luxury of the

age, to much eating, and want of exercise *f*.

The treatise of *Fevers* is clear and succinct, but taken in a great measure out of *Ætius* : the chapter *de Epiala*<sup>t</sup> is word for word from that author ; and in that concerning a *Hætick*<sup>u</sup>, the remarkable comparison of pouring water upon *Lime*, may plainly be traced not only in *Galen*, but in *Ætius* and *Alexander*.

The next chapter treats of a *Marasmus* ; and I beg leave by the by to correct a very great mistake, which Mr *Char-tier*, who has given us a very elegant edition of this piece, has made. Part of the description of this distemper, is βλέφαρα ὀδυνώσως μυσαζόντων, which he translates *palpebræ Sacrificantium similes*. Besides that there is no such word in the Greek language, as μυσάζω, the sense requires it should be read νυσαζόντων, *dormitantium*. This very circumstance of the eye-lids is in *Galen*, and expressed by the

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*f* 162.    <sup>t</sup> cap. 27.

<sup>u</sup> cap. 17.



very same word, ὁ ἀπληρώως νοσηζοσι δια-  
κείμενοι. The expression of *Ælius* is  
ὑπνώτοντες, and of *Alexander* εἰς ὑπνον ἐλ-  
κόντα.

There are several Manuscripts of this  
piece in the library of *Vienna*, tho' none  
of them bear the name of *Palladius*; but  
are ascribed sometimes to *Theophilus*, some-  
times to *Stephen*, and sometimes to both.  
In the title of one, it is said to be ta-  
ken from the *mouth* of *Theophilus*, as  
*Lambecius* at large relates \*. However,  
if we would consult *Palladius* himself,  
we should be satisfied that he was the  
true author of this book, for he refers to  
it in his commentaries upon the *Epi-  
demicks* †. You see here an instance, how  
little stress is to be laid upon the *Titles*,  
as they are often set down in Manuscripts;  
which frequently carry the name of this  
or that author, as the wrong judgment,  
the fancy, or some secret view of the tran-  
scriber happen'd to lead him.

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\* lib. 6. 88.

† Sect. 6. 6.

Indeed there are several tracts under the name of *Theophilus*, who goes by many and different titles, *Patrologista*, *Protospatharius*, and *Monachus*; the two last of which seem very contradictory to one another. *Lambecius* places this *Theophilus* in *Heraclius's* reign: for this reason only, because in *one* manuscript<sup>z</sup> the book of *Feathers*, as was just hinted, is said to be taken from the *mouth* of *Theophilus*; and therefore, since the same book is ascribed to *Stephen*, who wrote in that reign, he thinks it follows that *Stephen* was one of his *auditors*. But the authority and the reasoning equally seem ill supported; and I think what has been said of this very treatise just before, is sufficient to refute such an opinion. I should rather be inclined to believe, from some barbarous words, which he intermixes in his Writings, that he liv'd after that time. He is the *first* Author now extant, who

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has treated professedly of *Urines* : and he has very well explain'd the causes of their colour and consistence; what distempers they respectively indicate, and what prognosticks may be drawn from them. There are here several passages the same, and express'd in the same words, as we may read in a book upon the like subject, falsely ascribed to *Galen*, as will easily appear to any one, who compares them. He transcribes often out of *Ætius*. He has written in much the same manner concerning the *Fæces*. We have also extant two works of this *Theophilus*, *The Structure of the human Body*, and *Commentaries upon the Aphorisms of Hippocrates*: the last are short and plain, and shews him to be no less versed in *Aristotle's* notions, than well acquainted with the sense of *Hippocrates*. But in both these works, and especially the first, he takes the greatest part out of *Galen*; whose books concerning the *use* of the parts he very often so religiously copies,

that



that in the description of the *Wind-pipe*, he quotes the very same verse out of *Homer*, which *Galen* does,

Κλαγγηδόνδε πέτονται ἐπ' ὠκεάνοιο ῥοάων.

But where this author varies from *Galen* or adds to him, will be better explained by an ingenious gentleman, who intends to give us, what is so much wanted, an edition of this and some other *Anatomical* Pieces of the ancients.

The Aphorisms I mentioned are printed under the name of *Philothæus*; and in the *Vienna* Manuscript are ascribed to *Stephen*.

The treatise concerning the *Pulse*, which we have translated under the name of *Philaretus*, is in the Manuscript there said to be written by *Theophilus*: and perhaps not without reason. For the structure of the human body is done much in the same manner; he says others had written upon this subject ei-  
ther

ther too imperfectly, or too prolixly : by the last expression he seems to mean *Galen*, of whom indeed he gives us here only an Epitome, drawn out of his books of making a Prognostick from the Pulse.

*Stephen* the *Athenian* or *Alexandrian*, called sometimes the one, and sometimes the other from the place either of his birth or his residence, wrote a commentary upon *Galen's* first book to *Glauco* : a book writ with so much perspicuity, that it does not seem to want any comment to make it more intelligible. But there is reason to think, that the chief physical learning of his time, consisted in reading upon *Galen* : and *Abi Osbeia*, the *Arabian* Biographer, tells us of seven *Alexandrian* Physicians, among which *Stephanus* is one, who digested the Works of *Galen* into sixteen books ; which again, according to the different matter, they divided into seven Classes : that these were the only books they studied ; and that in their turn, they



they made it their whole business to comment upon them and explain them to their auditors. And therefore it is not at all probable, that he lived in the *third* Century, as Mr. *le Clerc*, without any authority, supposes : and indeed it is plain from this very comment of *Stephen*, that he was much more modern ; for he himself mentions very ancient expositors <sup>a</sup> of this particular book of *Galen*. And upon considering what he says in *Section* 140, concerning a *Quartan*, to me he seems to allude to a wrong interpretation, as he represents it, which *Alexander* <sup>b</sup> had made of *Galen's* sense in this place. If this Writer be the same with *Stephen* the *Chymist* (as he is call'd) his age is easily known : for that author dedicates his work *de Chrysopæiâ* to *Heraclius*, and this will make his age consistent with what has already been observed. We read of a *Stephen* too, and

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<sup>a</sup> S. 98.

<sup>b</sup> lib. 12. 8.



an *Alexandrian* likewise, in this very Emperor's reign, who was a famous Astrologer, and foretold the great power to which the *Saracens* should arrive, as they did in some years after. *Vanderlinden* calls *Stephen* the last of the old *Greek* authors; though, if this account of his age be true, it will appear that several others wrote in *Greek* after that time.

Of these *Nonus* seems to be in order next; who compos'd a sort of a Physick-manual, in which is contain'd some short account of most distempers and their cure. He inscribes it to *Constantin Porphyrogenitus*; who according to *Lambecius* was the seventh Emperor of that name, the son of *Leo*, and died in nine hundred fifty nine; and who, as he had some tincture of learning himself, was a great Patron of it. But *Fer. Martius*, who publish'd an edition of this author in *Greek* and *Latin*, thinks the *Constantin* here meant (a *Porphyrogenitus* as well as the other) was the son of *Constantin Ducas*,

*Ducas*, who died in 1067; for this reason, that the father *Ducas*, though unlearned enough himself, was an admirer and encourager of letters, and had this saying often in his mouth, *That he had rather be ennobled by Learning than by Sovereignty*. Accordingly we find the *Pfelli* made some figure in learning about that time.

To which of these *Constantins Nonus* inscrib'd his Work, is not very material: I shall only take notice, that we may collect from a passage in *Anna Comnena's* history, that in the interval between these two Emperors, learning was extremely declining, if not quite extinct<sup>c</sup>.

This epitome is little else than a transcript from *Ætius*, *Alexander*, and *Paulus*. For instance in the chapter concerning a *Carus*, what he says<sup>d</sup> of the *anterior* part of the brain is taken from *Alexander*<sup>e</sup> and *Paulus*<sup>f</sup>. The direction

<sup>c</sup> lib. 5.<sup>d</sup> 28.<sup>e</sup> 1. 4.<sup>f</sup> 3. 9.



to bleed in a fit of the *Stone g*, is evidently copied from the latter author <sup>b</sup>; and from the former <sup>i</sup> is transcribed the observation and distinction he makes about bleeding and purging in a *Pleurisy* <sup>l</sup>; though *Moreau*, who quotes the very words from him, takes no notice of it. Many of the medicines he recommends are in so many words describ'd in *Ætius*, viz. The *Collyriums* of *Erasistratus*, and those made of *Frankincense*, and of the Plant call'd *Glaucium* <sup>m</sup>, the applications for the face in an *Elephantiasis* <sup>n</sup>, &c. the antidote of *Esdra* <sup>n</sup> and others. *Nonus* is so modest as to quote no author; which very well became one, who had so little of his own. Nay he is so free with the labours of his Predecessors, that he even assumes their experience to himself: he gives a particular description of *Melancholy* <sup>o</sup>, and with an air of a great

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g 174.      b 3. 45.      i 6. 1.      l 129.      m 49.  
 4. 5.      n 205. 206. n. 13.      o 33.



Practitioner, is full of the good effects he had seen himself from the *Armenian Stone*, and therefore prefers it to *white Hellebore* : he talks very sensibly about the bite of a *mad Dog* <sup>p</sup>, and remarks, that when once a *Hydrophobia* comes on, he never, in all his experience, knew one recover : and yet every word in the *first* case is transcrib'd from *Alexander* <sup>q</sup>, and in the *latter* from *Paulus* <sup>r</sup>. *Barchuy-sen*, you may observe, treats him as an original Writer, and employs a whole paragraph to explain his notions as to the causes of distempers, who had no one notion but what he borrowed.

In some of the Manuscripts at *Vienna*, this piece is divided into chapters, as it is printed ; in others into books ; but in all of them it goes under the name of *Theophanes*, without the least mention of *Nonus* ; and in the title is said chiefly to be collected out of *Oribasius*, tho'

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<sup>p</sup> 270.

<sup>q</sup> 1. 17.

<sup>r</sup> 5. 3.

by the account already given it is very plain, that the collector, whoever he was, was more beholden to other Writers.

*Michael Psellus* liv'd not long after *Nonus*, and inscribed the book, which he put together concerning the qualities and virtues of Aliments, to *Constantin* the Emperor. *Lambecius*<sup>J</sup> thinks this *Constantin* is he, who is call'd *Monomachus*, and who reign'd from 1043 to 1055 : but if, according to his account, *Psellus* died in 1078, it is at least as probable it might be *Constantin Ducas* : and what adds to the probability is, that it appears from *Zonaras*<sup>t</sup>, he was Præceptor to *Michael Ducas*, that Emperor's son. The same *Zonaras* gives this Writer the character of a Person wholly unfit to have the tuition of a Prince, as being not at all qualified in any sort of letters : but *Anna Comnena*<sup>u</sup>, who lived a few years af-

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<sup>J</sup> Biblioth. Cæsar. 6. 208.    <sup>t</sup> lib. 18.    <sup>u</sup> lib. 5.

ter him, on the contrary, extols him as one who was a perfect master of Philosophy, one of great natural Parts, and of profound learning both *Greek* and *Chaldaick*. The same encomiums are bestowed upon him by *Leo Allatius*, who (by his Dissertation *de Psellis*) seems to be fond of this very name, and describes him not only as πολυγλωσσώτατος, but as one in the first rank of Writers. However there is nothing to be found in this Treatise, which can do any Author much credit: for it is only a collection from the elder *Greek* Physicians, who themselves collected this part of knowledge chiefly from *Galen*. He was persecuted and strip'd of every thing by *Nicephorus Botoniates*, turn'd *Monk*, and soon after died, very old. There are many other tracts writ by this Author; an account of which we may read at large in *Leo Allatius*.

And yet, tho' *Psellus* was such a compiler as has been mention'd, *Simeon* of



*Antioch*, writing upon the same subject, but, indeed, in a very impure style, copy'd mostly from him : which is the more extraordinary, since the book he transcribed from, was then fresh in every one's memory : for *Simeon* must have been his contemporary, tho' no doubt younger, because he dedicated this treatise to *Michael Ducas* call'd *Parapinaceus*, who resign'd the Empire in 1078, the very year in which *Psellus*, as we are informed, died. There are many other works of this *Simeon* : particularly we owe to him the translation (out of *Arabic* into *Greek*) of a very fantastical book, concerning the wisdom of the *Indians*, which *Perzoes*, a Physician, collected at the desire of *Chosroes* King of *Persia*.

We have extant likewise a little Treatise upon the *Gout*, written by *Demetrius Pepagomenus*, and dedicated to *Michael Palaeologus* : about the year 1260, if the first Emperor of that name be un-

derstood; and if the *second*, about 1310. This discourse, though containing little extraordinary, and being collected out of other Writers, chiefly *Alexander*, yet is far from deserving the character, which *M. Musurus*, his translator, bestows upon the Author, (by name unknown to him) of *infans & elinguis*, &c. as if he could not express what he meant. *Fabricius* seems to imagine, that the treatise falsely ascribed to *Galen* concerning the cure of the *Stone*, might be writ by this Author, *Demetrius*: but how he comes to imagine so, I cannot divine; unless the affinity of these *two* distempers might have given him some ground to suspect, that they were both treated of by the same Author.

*Actuarius*, the son of *Zachary*, so called without doubt from the employment he held as chief Physician<sup>y</sup> to the Em-

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<sup>y</sup> Codin. lib. 2.

peror, is an Author of a better character than any of the rest I have mentioned. He wrote several treatises, in which occur many things worth our reading. He practiced at *Constantinople*, and, as it appears, with some degree of credit: his *six* books concerning the method of cure being compiled for the use of one of the chief Officers at Court, the Lord Chamberlain, who was sent upon an embassy into the North. *Fabricius*, by mistake, makes *Actuarius* himself the Embassador. In these books, tho' he chiefly follows *Galen*, and very often *Ætius* and *Paulus* without naming them, yet he makes use of whatever he finds to his purpose, both in the old and modern Writers, as well *Barbarians* as *Greeks*: and to do him justice, we may find several things in him not to be met with any where else.

This Piece he calls a little Book or Compendium, writ extempore; and, as he says in several places, it was designed



only for the private use of this Embassador, who being somewhat versed in the knowledge of Physick himself, might easily have recourse to it upon any occasion : and therefore you may observe there is nothing said in it relating to *Surgery*, or the distempers of *Women*. Tho' the Author, I confess, sometimes forgets himself, and does not always keep up to his design ; else we should have found no mention of diseases, particularly the *Aphthæ*, in children. In the first two books he treats of the causes and signs of distempers ; in the two next, of the cure of them in general and in particular ; and in the two last he describes all the inward and outward remedies ; some of which he says he takes from the *Greeks*, some are his own, and some are such as he had heard of ; but rarely adds the name of the author, least that might raise too high an opinion of the medicine.

In the *third* and *fourth* book, as well as in other places, he talks much of his *own* experience : in speaking of the bite of a *mad Dog*, he says he has known a *Hydrophobia* succeed after a *twelve-months* distance : some tell us, he says, that it will appear after *seven* years ; and here he plainly means *Paulus*, whose words they are, tho' he does not name him. He has some *new* and proper remarks, where he treats of the *Colick*<sup>z</sup> and inflammations of the *Liver*<sup>a</sup> : the distinction he makes in the causes of *Palpitation* seems to be his own<sup>b</sup>, and is not taken notice of, as I can find, any where ; *Oribasius*, *Ætius*, and *Paulus* only transcribe what they say, which indeed is very little upon this head, from *Galen*. He tells us, that this disorder generally arises from too great a heat or plenitude of blood ; - but not always ; for sometimes *vapours*, which fume upwards, may produce it. And the difference may be found out, particularly

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<sup>z</sup> 4. 6.
<sup>a</sup> 4. 7.<sup>b</sup> 4. 3.

thus : if it proceeds from the first, the Pulse will be *unequal* : but there is no necessity, that it should be so in the latter. And surely he gives as rational an account of the causes, which occasion this violent motion of the heart, as any who have writ since his time. If we look into the *Arabian* Authors, who wrote before or in his age, we shall find they generally attribute this distemper to a *cold* cause ; *Paracelsus* ascribes it to a dissolution of his *Tartar* ; *Helmont* to an acidity of the native *Gas* ; *Sylvius de le Boe* chiefly to the corrosive vapours from the *Pancreas*. It will be too long to repeat all the Hypotheses of fanciful Writers, which relate to the origin of this disorder : for a tast of the rest, I shall only give you one from a *German* Author, *Dolæus*, who has written, as he styles it, an *Encyclopædia* of all Physick, in order to instruct us in the right notion of each distemper. “ Palpitation,” says he, is a disorder, wherein *Car-*  
*dimeleck,*



“ *dimeleck*, the King it seems who keeps  
 “ his residence in the ferment of the  
 “ heart, finding himself attack’d and  
 “ oppress’d by a civil War, rais’d by a  
 “ disaffected Party among his subjects,  
 “ exerts himself all he can to drive out  
 “ the enemy, and calling in to his aid  
 “ his ancient good ally, *Microcosme-*  
 “ *tor*, Governor of the *Animal Spirits*,  
 “ he gives battle to the disturbers of his  
 “ rest.” But to pass by this idle jar-  
 gon, and to enter into a more rational  
 Pathology of *Palpitation*; what *Actua-*  
*rius* says of the unequal Pulse in the case  
 of *plenitude*, we find often by experience  
 is very true. And this inequality of the  
 Pulse is often a fore-runner of not only  
 a *Palpitation*, but of a *Syncope* and sud-  
 den death, and indicates some obstru-  
 ction about the Heart; as *Galen*<sup>c</sup> prog-  
 nosticated in the case of *Antipater* the  
*Physician*, who died soon after in this

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<sup>c</sup> Loc. affect. 4. 11.

manner. The Pulse indeed in these violent commotions, is not only unequal, as to time or strength, but frequently *intermitting*. For the heart meeting with a resistance from the blood, either in the *Pulmonary Artery* or the *Aorta*, and being not immediately able to overcome it, suspends as it were its contraction, 'till it is reinforced with a sufficient supply of Spirits to drive the blood on in the usual channels. Therefore we may observe, that in a fit of very strong palpitation, the distance between the pulsations is greater ; and the longer the interval is, the more violent they are. This is the case in great fulness of blood : hence *Galen* observes, that upon this very account, those are most subject to *Palpitations*, in whom the *Hæmorrhoids* or *Menses* are suppress'd. This complaint likewise may not only be owing to plenitude, but either to an excessive rarefaction, or too great a cohesion and tenacity of the particles of the blood, or

to

to any large quantities of *wind*, which oppress and distend the *Chest* or the *Lower-belly*. For one or other of these reasons we see a Palpitation of the Heart is a familiar symptom, which attends *Hypochondriacal* and *Hysterical* persons, as *Actuarius* observes: and *Hollerius* describes a case relating to this disease, where the *Pericardium* was swell'd with *wind* alone to a vast dimension; and no other cause appear'd, which cou'd occasion the disorder.

*Actuarius* says more of the cure of a *Palpitation*, than any of the other *Greek* Physicians; besides *Alteratives*, which must be adapted to the causes of the complaint and the constitution of the patient, he lays the chief stress upon *bleeding* and *purgings*; the last of which methods I believe is first mentioned by this author. And certainly as the intention of curing, where the distemper arises from some particular state of the *Spirits* and the *Blood*, must be either to diminish



minish the influx of Spirits into the Nerves, or to take off the resistance in the vessels of the Heart: gentle *Evacuations* seem to answer both these ends, especially *bleeding* and *purging*; both as they empty, and as they revell. I believe there is no *Palpitation*, which is properly original or *Idiopathick*, and which depends upon an ill state of blood, wherein both these sorts of applications are not rational, whatever *Sennertus* may dictate otherwise: and I have often wonder'd, that our countryman, Dr. *Willis*, mentions neither of them in his method of curing this distemper. *Piso*, no ill practitioner, recommends both<sup>d</sup>, and so indeed do many practical Writers: but they are so full of salvo's and cautions, that it is hard to understand from them, where to apply either of these remedies, and where not. Certain it is, that *Galen* advised *bleeding* universally;

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<sup>d</sup> Sect. 3. 2.

and it is a remarkable case<sup>e</sup> he gives us of one, who every spring was seiz'd with a violent Palpitation: *bleeding* every spring *three* years successively in the fit, took it off; which the patient observing, the *fourth* year he prevented the fit by bleeding earlier, and had the like success for several years after. In the case of *plenitude* all agree upon *bleeding*; but *Salvus*<sup>f</sup> seems to be in the right, when he prescribes it, whether there be any plenitude or not. For certainly if we take this *Palpitation*, as proceeding either from too great a hurry in the Spirits, or from too great a rarefaction or cohesion of the blood, which may produce a stronger resistance in the outlets of the Heart, diminishing the quantity of the blood must in every respect relieve. And therefore we see in *Symptomatical* palpitations, which arise for instance, from the *Menses* or *Hæmorrhoids* suppres-

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<sup>e</sup> Loc. affect. 5. 2.

<sup>f</sup> Curat. particul. affect.

fed, as soon as ever nature recovers her usual course, this disorder of the heart goes off. Nay, the sudden eruption of the latter, where it has not been habitual, seldom fails of removing this complaint. It is without doubt a very wise rule, which *Sennertus* lays down, that when an excess of water in the *Pericardium* occasions the *Palpitation*, we should neither *purge* nor *bleed*: which if we did, we should certainly find the attempt ineffectual; the cause of the distemper being beyond the reach of these applications. But how a *warm Electuary*, a *hot Loaf*, or an *aromatick Bag* should discuss or waſt this Water here, which he proposes, is equally as inconceivable, as how it should be drawn off by blistering upon the *Sternum*, which some commend, and which in his opinion is incomprehensible. The case he describes, I doubt, is incurable: and therefore we may spare our pains in arguing, whether *bleeding* be proper or no. I must  
here



here add one remark, that the cure of an *original Palpitation* has been omitted by most of our Writers in Physick, who have generally directed all their rules of practice to those of the *Sympathick* kind only<sup>g</sup>: tho' certainly there are *Palpitations*, which depend upon no other formed distemper, nor yet upon any fault of the *Heart* or *Pericardium*, and which may be removed by art, as *Actuarius* here proposes.

*Actuarius* is the first *Greek* writer, who has mention'd or describ'd the milder sorts of *purging* medicines, such as *Cassia*, *Manna*, *Sena*, *Myrobalans*: the two last he says were brought from foreign parts to his country, *i. e.* from *Syria* and *Ægypt*. *Sena* he describes as a fruit; by which no doubt he means the same thing, as *Serapion* does by the *Vagina*, and *Mesue* by the *Folliculus*, which contains the *Seed*: for neither these authors, nor *Actuarius*

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<sup>g</sup> Vid. River.

mention any thing of the *leaves*. And tho' these are chiefly in use now, yet the *Pods* are sometimes made use of too; and by what we can learn from these Writers, were probably the only part of *Sena*, which was then administred in Physick. He adds, that this Simple is very effectual in purging off the *Phlegm*, as well as the *Bile*: the first quality is what the *Arabian* Writers take no notice of. What he relates of its coming from *Syria* as well as *Ægypt*, agrees with the best accounts we have of this Plant: that which is brought from the *Levant* being still esteemed the most valuable. As to these several sorts of purges he speaks of, he professedly takes from the *Arabians*, whom he calls *Barbarians*, who without dispute first introduced these Simples into Physick. He gives the same account of the three sorts of *Myrobalans*, as they do; and quotes the name of the *Emblicæ* & *Belliricæ* in their own language. These *two* last,  
 tho'

tho' in their qualities they have a great affinity with the *Myrobalans*, yet are here distinguished from them, as they are indeed by all the *Arabians*. *Myrepsus* seems to be the first who confounds them with the *Myrobalans*, and therefore mentions *five* Sorts of them, as the moderns do generally after him. What *Actuarius* says of the composition of all these sorts<sup>b</sup>, which is called *Tryphala*, or rather *Tryphera parva*, (for *Triphylos*, as *Gesner*<sup>c</sup> would read it, seems too far-fetch'd) is exactly the same we meet with in *Serapion*<sup>d</sup> and *Mesue*<sup>e</sup>, whom he calls the *Barbarous Wise-men*, and is recommended by them in the very same cases. He employs a whole chapter in treating of *Syrups* and *Juleps*<sup>f</sup>, in both which, *Sugar* is generally an ingredient: and these, no doubt, he likewise took from the *Arabians*. Hence it is, that he is supposed by some to have been

<sup>b</sup> Meth. Med. 5. 8.<sup>c</sup> Epist. 1. 22.<sup>d</sup> Simpl. 95.<sup>e</sup> 5. 9.<sup>f</sup> 5. 4.



well-skill'd in the *Arabick* tongue. But whatever acquaintance he might have with some of the *Arabian* Medicines, it is very remarkable he treats of no other distempers, than what are to be found in the other *Greek* Authors; and does not mention any of those diseases, which the *Arabians* first took notice of, not so much as the *Small Pox*. The *Sarracens* first brought in this distemper, and wherever their Arms prevailed, this spread itself with the same fury in *Africk*, in *Europe*, and thorough the greatest part of *Asia*, the *Eastern* part especially: and it seems very surprizing, that in several hundred years, it should never appear in the *Græcian* Empire: as, if we consult not only the Physicians, but the Historians of that Time and Nation, we have reason to believe it never did, especially when they never fail to take notice of an *Earthquake* or a *Plague*.

Another

Another thing, which we meet with in no *Greek* Writer else before *Actuarius*, is the mention of *Distilled Liquors*, as the *Rhodostagma*, and the *Intybo stigma*s, which the translator calls *Stillatitius liquor Rosarum*, & *Aqua quam Intybus stillavit* : and which are by the Author us'd as ingredients in a Julep. *Gesner* indeed contends, <sup>b</sup> that these liquors here specified, are not prepared by any *Chymical* Process, and are nothing more than *Syrups* of those Plants ; just like the *Rhodostacton* described in *Paulus*<sup>i</sup>. Mr. *le Clerc*, following the opinion of *Langius*<sup>l</sup>, thinks otherwise ; and has shewn very plainly, that the *stillatitious* liquor of *Roses* mention'd by *Actuarius*, is very different from the *Rhodostacton* of *Paulus*, which is only made with the juice of roses and honey boiled up together. His judgement seems to be very right in this matter ; and as a further proof

<sup>g</sup> Method. medend. 5. 4.

<sup>i</sup> lib. 7.

<sup>b</sup> Præf. Euonym.

<sup>l</sup> Epistol. lib. 1. 53.



of it, give me leave to observe a passage or two in *Nic. Myrepsus*, one of the last of the *Greeks*, and who often copies from our Author. He describes the *Rhodostacton*<sup>m</sup> of *Paulus*, only with this difference, that he says, it may be made with sugar, as well as with honey: then he describes the *Hydrorosatum*, as it is delivered down to us by *Ætius* and *Paulus*, a medicine much like the former, with this variation alone, that water is added to the roses: and after that he proceeds to give the receipt of this very *Julep* in *Actuarius*; which proves at least, that he thought it a preparation very distinct from the other *two*. And it must appear very evident to any one, who considers the composition itself, that it is a very absurd one, unless the *distilled* rose-water be meant: for otherwise it is just a double trouble, and making the medicine twice over, with

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<sup>m</sup> Sect. 39.



the very same ingredients, to little purpose.

Mr. *le Clerc* supposes that *Actuarius* was bred up in the school of the *Arabians*, and learnt somewhat of the *Chymical* Art from them: but this seems to be a mere conjecture, founded upon no authority whatever. For though without dispute *Actuarius* knew, as has been remark'd, some of the Medicines they introduced, which might be owing to some casual commerce and communication at that time between the *Greeks* and the *Arabians*, yet it does not in the least appear, that he was vers'd in their physical Writings: as one may be well acquainted with a Drug, and the use of it, which comes from the *East* or *West Indies*, without knowing any thing further of the *Theory* or *Practice* of Medicine in those Countries.

As to this point of *Distillation*, or of the introducing any *Chymistry* into Physick, Mr. *le Clerc* fixes the *Epoche* of it

in the time of *Avicenna*, who, as he supposes, *first* applied this sort of knowledge in the way of Medicine. I shall not here enter into any dispute concerning the Origin of medicinal Chymistry; only I must observe, that if it be, as perhaps it may be, derived from the *Arabians*, the honour of the invention ought rather to be restored to *Rhazes*: for not to mention *Mercury* extinct and sublimate, which he takes notice of <sup>I</sup> likewise, *Oyl* of Eggs, the only *Chymical* Medicine as I can find in *Avicenna*, is described by that Author. *Rhazes* besides gives us the first account of the *Oleum Benedictum* or *Philosophorum*, and is very particular in explaining the manner of making it in a *Glass Retort*, such as will bear the fire, and well luted (*luto sapientiæ*, says the interpreter) increasing the fire gently and by degrees, till a red oyl comes off by *distillation*.



This is the first Writer, I believe, who gives the least hint of *Chymical* Medicines ; for what we find in the old *Greek Chymists*, as they are called, relates only to the fusion or transmutation of Metals. Mr. *le Clerc* pitches upon *Avicenna*, as the *first* introducer of *Chymistry* into Physick ; for this reason, because in him, he says, occurs the first mention of a *Chymical* remedy, tho' but of a single one, which is *distilled Rose-water* ; and he quotes *two*<sup>t</sup> places out of him to that purpose. But if he would look into *Avicenna* more carefully, he would find that there is not the least hint of *Distillation*, but a very plain direction how to *boil* the Roses in Water, the same as the *Greeks* used in making the *Rhodostacton* and *Hydrorofaton* : and what *Gesner* says of the old *Arabians*, I believe is true, that wherever the *water* of any plant occurs in their Writings, there is meant

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<sup>t</sup> De Viribus Cordis & Pleurit.



nothing more than a *Decoction*. And it is certain, that of all the *Arabian* Writers, *Joh. Damascenus* called *Mesue*, who lived in the latter end of the *twelfth* Century, in the reign of *Frederick Barbarossa*, is the *first*, that has described the process of making this water in the *Chymical* manner.

And yet there is reason to think, that the *distilled Rose-water* was in use among the *Greeks* before this time. There is a passage in the history writ by *Anna Comnena* very particular, and which comes up to this point; where, upon the Emperor's fainting away, some of this liquor was poured down his throat, and brought him to his senses; the words<sup>p</sup> are τὸ ῥῶς ἐδῶν σαλάγμῳ &c. This expression cannot, I think, with any propriety of language, be adapted to signify either the *Syrup*, *Decoction*, or *express'd* juice of *Roses*; and when it is

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<sup>p</sup> lib. 15. sub fine.

applied to the liquor of any Plant, it is only then, when upon incision that liquor falls from it by drops, as in Vegetables which yield any Gum or Balsam. Besides in the case reported in this History, one cannot easily imagine, that plain *juice* of Roses could ever have been thought upon as a *Cordial* in such an extremity. The death of this Emperor, *Alexius*, happen'd in 1118: and therefore supposing that in this place is meant the *distilled* water of Roses, it appears, that it was known to the *Greeks* soon after the time of *Avicenna*.

By the way we may take notice, that the Princess, the writer of this history, as she was reckon'd very learned in many Arts and Sciences, seems to have had some smattering in Physick. We find her very busy in feeling her Father's Pulse, and forming some judgement as to his strength, upon it: she gives a very circumstantial account of his illness, and observes how true was the prognostick, which



which the Physician, then in great credit, *Nic. Callicles* made in that case, when the rest of the Physicians were against purging, after the *gouty* matter had settled in the shoulder : he foretold, that, since it had left the extremities, it would, unless remov'd by this method, soon fall upon the nobler parts, as it did ; upon which an *Asthma* quickly succeeded, and, not long after, Death.

We have besides in this history, a very long and elaborate description of a magnificent *Hospital* erected for the sick by *Alexius* : and as this seems to be one of the first endow'd foundations of the kind among the *Greeks*, and therefore may justly claim a place in a history of Physick, I hope I shall not be thought to step much out of my way, if I give a very short extract of it. *Alexius* built a new Town in a quadrangular form, near the mouth of the *Euxine* Sea ; and among these new-erected buildings, there were *Hospitals*, which he founded out of compassion



passion for human infirmities, and for the comfortable subsistence of the maimed and the invalids. One might see there the blind and the lame, as formerly in *Solomon's* Porch, which was fill'd with the diseas'd of all kinds. The building was double, and rais'd two Stories high. It was of such a vast extent, that an entire view of it could scarce be taken in one day. Tho' the inhabitants of this Town, and those placed in this Hospital, had neither lands nor possessions, and were reduced to a poverty equal to that of *Job*, they never fail'd to receive from the liberal hand of this Prince, every thing that was necessary for their maintenance and support. And what is more strange and surprizing, the Persons who seem'd to have nothing, had their Receivers and Stewards; insomuch that those of the first Rank picqued themselves in taking care of their affairs. By which means great Purchases were made, and great Bene-

Benefactions continually given to carry on so charitable a work, which she, the Author of the History, liv'd to see finish'd. But *Alexius* first made the establishment of it, assign'd the revenues for it both by Land and Sea, and order'd that one of the prime Ministers should always have the Inspection of it. Tho' there were soldiers, who had been disabled, and old men incapable of any labour entertain'd here, it was called the *Hospital of Orphans*, because generally there was a greater number of these than of any others. There were Letters Patents seal'd by the *Golden Bull*, to ascertain and secure the funds and the annual income of it. The receivers were oblig'd to keep an exact account, in order to justify themselves, that they did not embezzle that money which was allotted for the poor. *Procopius* tells us indeed, that *Justinian* founded several such Hospitals; but gives no particular account of them, as he does of the other Edifices



fices built by that Emperor. And upon examining the ancient History not only of *Greece*, but of other Countreys, one would be surprized to find how little occurs, with regard to foundations of this kind.

But to return to *Actuarius*, and to conclude what I have to say of his Treatise, concerning the *Method of Cure*, the Author seems to be very curious in the choice and description of his Medicines; and this work of his may pass very well for a good practical System of Physick.

The *two* Books concerning the *Spirits* are written in a *Physiological* way; and all his reasoning in this discourse, seems to be founded upon the principles laid down by *Galen*, *Aristotle*, &c. with relation to the same subject. Therefore, as it is scarce of any use either in distinguishing or curing Diseases, I shall forbear giving you any farther account of it: you find an abstract of it in

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*Barchuysen.* I shall observe only, that the style of this Tract is by no means impure, and has a great mixture of the old *Attick* in it, which is very rarely to be met with in the later *Greek*-writers.

This Author has likewise writ *seven* Discourses concerning *Urine*, where he has treated this argument very fully and distinctly ; and tho' he goes upon the Plan, which *Theophilus* had mark'd out, yet he has added a great deal upon this subject : so much, that he has left scarce any thing new to be said by any of the moderns, tho' many of them have, almost word for word, transcribed this piece of *Actuarius*, without so much as doing him the favour to mention his name. He ends these Treatises with a chapter, which deserves every one's perusal, and adds a very pertinent remark about making a *Prognostick* in Distempers, that nothing contributes more to form a true one, than the *Pulse* and the *Urine* jointly consider'd : and therefore  
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in his books concerning the method of cure, he very judiciously treats of these *two Indications* together. His being acquainted with some of the *Arabick* Drugs may have given the handle for an opinion, that he translated these Books from *Avicenna*: but the manner of writing is so extremely different, that there does not seem to be the least ground for such a conjecture. It is much more probable, that the *Arabick* copy, preserved in manuscript, was translated from the *Greek*.

There are not proofs clear enough to point out to us the time, where we might fix the precise age of this Writer. He is commonly, without any authority as I can perceive, reckon'd to have lived in the *eleventh* Century by some, and in the *twelfth* by others. *Lambecius* brings him down, as low as the beginning of the *fourteenth*: for this reason, because in the Manuscripts at *Vienna* the books concerning the method of  
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cure, are inscribed to *Apocauchus*, who, according to him, is the same person that made a great figure in the reign of *Andronicus* and *Cantacuzenus*, about the year 1330, or 1340. The whole stress of his argument runs upon this circumstance; and because the reasonings he uses to support it, are something extraordinary, give me leave to enquire a little into the force of them. He endeavours to prove, that *Apocauchus* was the person described by *Actuarius* (tho' without any name) as going upon the Embassy to the North, and being his Fellow-student<sup>9</sup> under *Joseph Rachendytes*, to whom the books about *Spirits* are address'd: he represents him as a man skill'd in Philosophy and Medicine: and to prove this, he has recourse to the History of *J. Cantacuzenus*, where, he says, *Apocauchus* is ironically called  
 ὁ διαάκαλος ὁ οἰκεμένος καὶ μαθητὴς τοῦ πράξου

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<sup>9</sup> Præf. in 1. and 2. Meth. Med.



ὁ φιλανθρώπων, i. e. *Magister orbis, & discipulus mitis illius ac benigni præceptoris; nempe Josephi Rhachendytæ, cujus nomen ibi subaudiendum est* — Then he goes on thus, *Huc etiam pertinet, quod Joh. Cantacuzenus refert Apocauchum metaphorice loquendi modis à Medicinâ desumptis uti consuevisse, & J. Cantacuzenum suum appellasse Medicum, utpote cujus operâ multis implicatus periculis & miseris affectus modis, ereptus atque curatus fuisset.* These are his own Words, which, tho' recited and implicitly agreed to by *Fabricius*, will appear very surprising to any one, who will take the pains to consult the Historian himself: for in the first paragraph alleged, *Cantacuzenus* is so far from meaning *Apocauchus*, that he is speaking of the Patriarch *John*, whom he exposes here as a haughty and ill-natur'd man, pretending indeed to be a Teacher of the World, and a Disciple of Him who was meek,

and a lover of mankind : in which character it is plain that he describes not *Rhachendytes*, but our Saviour : and the same manner of expression, and in the same sense, he uses in another place<sup>u</sup>. There is almost as great a mistake in what follows about the Metaphors drawn from Physick, which *Apocauchus*, he says, so much delighted to make use of : the Historian has not one Word to this purpose ; only indeed he takes notice, that *Apocauchus* was wont to call him his Physician, not in a literal sense, but because he had rescued him from many troubles and dangers : but surely this is far from implying, that *Apocauchus* had any taste or knowledge of Physick. Nay *Apocauchus* is so little represented in all this History, as a man of any letters, that he is drawn under the character of one, who from a very obscure beginning, and a low fortune, from an Under-clerk in the *Finances*, by a natural cunning and subtlety, and a great dexterity in getting mo-



ney (of which he was extremely greedy) was at first employ'd in farming some of the revenues, and then advanced to the head of the *Publicans* in the time of *Andronicus* the Emperor : and after shifting sides and going over to *Andronicus* the Grandson, (for he had neither any sense of shame, nor of honour) by little and little he insinuated himself, so as to be made *Quæstor*, Governor of the Court and the Empire, and at last great Duke and every thing, as *Cantacuzenus* himself expresses it. The most wonderful thing was, that he held all this power, contrary to the inclination and opinion of that Prince<sup>m</sup>; who, tho' he employ'd him in these great posts, thought him always to be an arrant knave.\* At length having behav'd with intolerable insolence, as is the nature of all Cowards, and being justly thought the Author of all the publick calamities, this *Apocauchus* met with the fate he deserved, and was murther'd by the Prisoners in 1345.



But to return to our subject, supposing the character of this *Apocauchus* could agree to the person described by *Actuarius*, it is impossible he can be the man meant here. For it may be easily proved, that not only *Actuarius*, but another Author, who often mentions and transcribes him, must live before this time. This is *Nic. Myrepsus*, the last of the *Greek* Writers, if we may reckon such an impure Style, as he uses, *Greek*: who indeed has taken the pains to collect together, by way of a *Dispensatory*, the several compound Medicines, which we find dispersed in the *Greek* and *Arabian* Writers. It is very certain, that *Myrepsus* compiled this work before 1200: for not only *Petrus de Abano*, the famous *Conciliator*, who died in 1316, but *M. Sylvaticus* and *F. Pedemontanus*, both Physicians to *Robert* King of *Sicily*, and who wrote very early in his reign, which began in 1310, by name refer to several receipts, which we find in him.

So far one may argue negatively : and tho' it does not appear how much older he was, yet it seems probable, that he lived not long before the close of the *thirteenth* Century. For not to mention the Antidote of *Michael Angelus*, who might perhaps be the first Emperor of the *Paleologi*, about the year 1250, and whose wife was daughter to *Al. Angelus*; he describes another, which Pope *Nicolas* made use of. This Pope I should think to be the *third* of that name, who died in 1280, and contemporary with *Myrepsus*; because as the Times were then, he was a man of learning and a great encourager of all sorts of it. This at least is a sufficient proof, that *Actuarius* is a Writer of a more early date, than *Lambecius* represents him. I have before mentioned something of *Actuarius's* style: and even from thence one may, I think, draw an argument, that he was more ancient; if we compare him either with *Pfellus* or *Simeon*, he will appear to have

a much greater purity in his diction : and indeed after 1200, we shall scarce meet with any Writer but who has some mixture of modern *Greek*, or some *Barbarisms* taken from other languages.

If the authority of the Manuscript, in which this is inscrib'd to *Apocauchus*, be still objected, the answer is easy ; that either it must be some other *Apocauchus*, or that the title was forg'd : a practice very familiar among the transcribers of Manuscripts, and as ancient as the creation of the *Philadelphian* library.

Some other *Greek* authors, and some other pieces of these already mentioned, not very material, may be found in *Athenæus*, *Photius*, *Lambecius*, *Fabricius*, &c. But as they contribute little to illustrate either the History or the Art of Physick, I pass them by. Neither shall I say any thing of the *Latin* Writers, who lived after the time of *Galen*, since Mr. *le Clerc* in the first edition of his History, has given a full and distinct account of them all : ex-  
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cept of *Marcellus* the *Empirick*, who most impudently pillaged and transcribed *Scribonius Largus*, and did little in this work which he has left, besides adding a few trifling receipts or rather *legends* of his own.

Thus have I endeavoured to give you a short History, as well as I cou'd ground it upon any good Authorities, of the few *Greek* Physicians from the time of *Galen*: and I have pointed out some things relating to the improvement of Physick, which occur in their books. There has been indeed a prevailing opinion, that scarce any thing was done among the ancients towards advancing this Art, but what is comprized in the voluminous Works of that great Man. What gave the first rise to such a notion, probably might be this: because it appear'd at first sight, that those who succeeded *Galen*, did transcribe a great deal from him, many were inclined to think, without giving themselves the

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trouble of examining and comparing their Writings, that they did nothing else but transcribe. And no editor of these Authors has yet taken the least pains to undeceive them in this point : what has been left us by way of Comment, being employ'd chiefly in *Grammatical* or *Critical* Remarks, without any view of explaining what relates either to the History or the Practice of Physick, in the time of each respective Writer : I need not allege a greater proof of this, than the *Dolabellæ* of *Cornarius* upon *Paulus*. There is another circumstance, which might insensibly concur in the promoting this mistake, I mean the Extinction, or rather the *Comprehension*<sup>c</sup> of all Sects, as I have observ'd, after the time of *Galen*. For no doubt, the broaching a new Doctrine, especially if it were fantastical and extravagant, did then, as it always will, make a greater noise in the World, than any

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<sup>c</sup> Hence probably the *Episynthetic* Sect took its name.



improvement in a *Practical* way, either of a Medicine or of an Operation: and as the Writers in Physick for *two* or *three* Centuries after *Galen*, seem to have applied their thoughts only to the latter sort of Study, this it self may be one reason, why they have been so little regarded. But with all deference to *Hypotheses*, which were the chief points these Sects distinguished themselves by, and in which for the most part the pursuit of their inquiries intirely center'd, I should imagine that the invention of a new Medicine, or a new Method of Cure, would at least equally deserve to be recorded in the Annals of Physick.

I have given some instances, and more might be given, where the Physicians I have been speaking of have described distempers, which were omitted before; where they have taught a new way of treating old ones; where they have given an account of new Medicines, both simple and compound; and where



where they have made large additions in the Practice of Surgery. And if these be any real improvements of the Art, I think it cannot be denied, but that Physick was still making a progress 'till the Year 600.

This will further appear evident to any one, who will reflect upon the account we have of distempers, in these several periods of time. Mr. *le Clerc* has given us a list of all the indispositions and diseases, described or mentioned by *Hippocrates*, which is much longer than what we take notice of in *Celsus*: I wish he had drawn out likewise a list of those that occur in *Galen*; by which we should have seen, that the catalogue of Distempers was not so much enlarged, as we might naturally imagine it would have been, were we to judge from the bulk of his Writings. But if we examine the works of *Ætius* with this view, and compare his account with that of *Galen*, it will be found, that the number

ber of distempers, as they are reckon'd up by *Ætius*, amounts to almost a *third* part more. It will be too tedious, and perhaps too uninstruative to enter into all particulars; and therefore I shall instance only in one Article, that of the *Eyes*. The disorders incident to that Organ, as they stand recorded in *Hippocrates* and *Celsus*, are much the same, and are in all about *thirty*: *Galen* gives the names of several others, which indeed have no essential difference, and therefore he omits any description of them; in *Ætius*, who has employ'd a whole <sup>d</sup> book and more in treating of them, you will find there is at least *double* that number fully explain'd, with their Symptoms and Cure. Among these *Celsus* describes only *thirteen*, and *Galen* scarce any, which require *manual operation*: but in *Ætius* we meet with *thirty* different distempers of the *Eyes*, where

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<sup>d</sup> 2, 3, & 4.

he advises the using *Chirurgical* Applications; and in *one* of them (a great defluxion of humours) he at large recounts *three*<sup>e</sup> several methods of cure by way of Surgery. I must observe here, that in this book, which is one of the longest, *Ætius* quotes fewer Authors, than he usually does in the others: which may at least make it reasonable to think, that he wrote in some measure upon this subject from his own experience. In many places indeed it is evident, that he did: and the chief authors he here refers to, are *Severus* and *Demosthenes*; two intelligent Writers, as appears from these very fragments. The latter was scholar to *Alexander* the *Herophilean*, called *Philaethes* as well as his master: and wrote *three* books concerning the eyes, which *Galen* says were very much commended in his time.

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<sup>e</sup> cap. 89, 90, 91.



As to *Surgery* particularly, I think I may without any derogation to the more ancient Writers affirm, that whoever carefully looks into *Ætius* and *Paulus*, will be convinc'd, that a great many improvements have been made in that branch of Physick, which are not recited in *Galen*, or any where else. And in general it may be remark'd, once for all, that the writers I have mention'd in this Period 'till the Year 600, and those whose remains they have preserv'd, were not such collectors (which is commonly the case) as had little knowledge of the subject they undertook to treat of, but were every one of them men of experience and practice. And if the later *Greek* Writers, who succeeded, were persons of a lower character, and made little advancement in the Art they professed, it is the less to be wonder'd at, since for many Centuries universal ignorance prevailed over all the World: and it could not be expected, that Physick

sick should make any progress, when all other Sciences and all sorts of learning were almost quite extinct, or that it should be exempt from the common calamities of those times.

You see, SIR, that I do not over-value this lower Class of Writers, nor yet do I regret the time and pains I have employ'd in perusing them. For tho' the gleanings from thence are inconsiderable, yet they are not wholly to be despised. Even from these, and much more from those great Authors that went before them, I am convinced of the advantages we may receive from the Works of our Predecessors : and am satisfied, that a thorough acquaintance with the Writers in Physick, especially the old ones, is the surest way to fit a  
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man for the Practice of this Art. And if this may seem too strong an assertion to some, who can tast nothing but their own reflections on their own practice, I desire it may be observed, that there are some cases at least, which do but seldom happen : and when they do, I dare venture to say, that they will be less surprizing to one, who has a familiar acquaintance with the good Authors in Physick ; nay, that they will be more readily discerned, and more clearly distinguished by him, than by the greatest Genius that despises these assistances.

Every Physician will make, and ought to make observations from his own experience ; but he will be able to make a better judgment and juster observations, by comparing what he reads and what he sees together. It is neither an affront to any man's understanding, nor a cramp to his genius, to say, that both the one and the other may be usefully employ'd, and happily improv'd in  
searching



searching and examining into the opinions and methods of those, who lived before him, especially considering that no one is tied up from judging for himself, or obliged to give into the notions of any author, any further than he finds them agreeable to reason, and reducible to practice. No one therefore need fear, that his natural sagacity, whatever it is, should be perplexed or misled by reading. For there is as large and fruitful a field for sagacity and good judgment to display themselves in, by distinguishing between one author and another, and sometimes between the several parts and passages in the same author, as is to be found in the greatest extent and variety of Practice. It seems to me very presumptuous in those, even of the longest experience, to think, that they can meet with nothing new or worth taking notice of in the Writers of former ages. And for my own part, I don't see how any honest man can satisfy his own

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mind in such a superficial knowledge, as is to be gathered barely from a few modern systems, or think himself sufficiently qualified to sit upon life or death (for that is the case) by only consulting two or three *Dispensatories*, or perusing as many *Apothecaries* files, or even (what indeed is of somewhat more use) in spending a *few months* in an *Hospital*. It is an arrogance peculiar to some of our age and nation, to despise the most learned and celebrated Writers in their own Profession: and the darling notion of free-thinking carried beyond its bounds, has done a great deal of mischief in Physick, as well as in Divinity. 'Tis true, that no one ought to run implicitly into another's notions, merely upon account of his name or his antiquity, how great soever either of them may be; but surely 'tis as true, that a long and established reputation is a sufficient reason, why any of the ancients should be heard and try'd, before

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they are condemned : and I am apt to believe, upon an impartial inquiry it will appear, that it was upon very good grounds that *Hippocrates*, and *Galen*, and their successors, have been all along reckon'd the great lights and fathers of the faculty, and that such an universal deference has been paid to their Writings thro' an uninterrupted succession of many centuries. In some of which times it is possible, there may have lived men of as great talents, and of as large experience, as even the present age, renowned as it is, can produce. It has not usually been look'd upon as an extraordinary mark of wisdom, for a man to think himself too wise to be taught : and yet this seems to be the case of those, who rely wholly upon their own experience, and despise all teachers but themselves.

Why should it not be worth every Physician's while to compare cases and  
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symptoms, and reasonings and remedies, as they are laid down by former and later Writers? since by making such a comparison, and observing where they agree, and where they differ, where either the one or the other have succeeded, and where they have failed, he may have a better reason for preferring the moderns (if they are to be preferred) than the world will allow him, if he has only conversed with one side.

It is commonly said and believ'd, that the *Materia Medica* is not only very much improved, but reduced into a far narrower compass, than in former ages: how far this is exactly, and in all points true, might possibly admit of some dispute, but it is not now the question; for be it true or false, it signifies nothing to the Science we are speaking of, unless it could be alleged, that the nature and number of distempers were contracted too; which I doubt are

not. And yet if we were to take our notions from the concise method of study used by some of our fraternity, we should utterly discard that divine old Man, *Hippocrates*, by disclaiming and reversing his very *first* Aphorism: and if this were to be the state of Physick, I know no reason why all of us should not list under any *Empirick*, who pretends to a *Nostrum*. For where is the mighty difference, in point of knowledge, between forming all our notions after this or that particular Author; and confining all our prescriptions to this or that particular Medicine? Experience without doubt is a great help to knowledge, and no man of sense can undervalue the advantages of it: but it must not be denied at the same time, that the *word* is often made use of, where the *effects* do not so plainly appear. A man may practice, and practice all the days of his life, and yet be never the wiser for his experience, if he neglects to make the

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proper observations, which that experience might suggest to him : and it is not very likely, he should be over-nice in his observations, who constantly goes on in his first track, and has no other scheme, but his own narrow notions in his view ; whereas the searcher of authors has the benefit of other mens experience together with his own ; and it is from the joint-concurrence of these, that we can hope for any considerable advancement in knowledge. Were it not for this, the oldest Practitioner would always be the best Physician : and there would be little or no difference, even as to the scientific Part, between an old nurse, and the most regular Professor.

After all, I am far from thinking, that reading all the books in the Faculty, without proper observations, and good judgment, can furnish a man with such knowledge, as is required in a Physician :



fician : *Much reading*, says a great man,  
*is like much eating ; both of them do hurt,*  
*where there is not a good digestion.* Nor  
 do I suppose, that a man's confining  
 himself wholly to the study of the *An-*  
*cients*, will sufficiently qualify him to  
 set up for Practice : all I contend for is,  
 that the dignity of the Faculty may be  
 maintained, which can only be done  
 by men of suitable knowledge ; which  
 knowledge can never be obtain'd in the  
 degree it ought to be, without reading  
 and comparing together the ancient and  
 the modern Writers, and applying each  
 of them as they serve best for any gene-  
 ral notion, or present exigency. And  
 'tis the manner of this application, which  
 does and must make one Physician ex-  
 cel another. For want of this necessary  
 acquaintance with the best Writers, we  
 see how ill a great many Authors have  
 succeeded : who, whatever airs they may  
 assume upon the score of a long Practice,  
 when they come to treat of distempers, for  
 the

the most part write so as not to be worth any one's reading ; and are so far from apprehending or imitating the good sense in their predecessors works, that sometimes they do not so much as know in what *Language* they were written.

The advantages of being conversant with the best Writers in this Profession, might be much farther pursued : but this Treatise has grown under my pen so far beyond what I design'd, that a long digression at last wou'd be inexcusable. I will put an end therefore for the present, to your trouble and my own. Only give me leave, *Sir*, to mention (what was first in my thoughts, when I address'd this discourse to you, and what is now as warm upon my mind, as it was then) how sensible I am of your singular friendship, and the general kindness shewn to me by the whole Faculty, at a Time, when I was

appre-

apprehended to be in Danger. This I shall always remember with pleasure, and this I think my self obliged in the most publick manner to acknowledge.

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## E R R A T A.

**P**Age 16. line 18. pro *Thigh* l. leg, so p. 39. l. 7. & p. 49. l. 5. l. Legs. p. 24. l. pen. *Pæony*. p. 31. l. 11. l. pro *who*, whereas these two. p. 45. l. in Not. *De Re*. p. 53. l. pen. l. Tumours. p. 83. l. 33. in order. p. 94. l. Antep. dele *it*. p. 101. l. 5. l. pungent. l. 11. l. melancholy. p. 104. l. 2. l. frequent. p. 114. l. 1. l. *Dioscorides*, so p. 117. l. 18. p. 115. l. 12. l. *Ινδικόν*. p. 117. l. 3. l. *Scirrhus*, so p. 119. l. 6. p. 119. l. 4. dele *of*. p. 128. l. 8. l. *ὕγραινεση*. p. 132. l. 13. l. started. p. 163. l. 11. l. *Ophthalmy*. p. 108. l. 12. l. the Vessels. p. 184. l. 10. *Gasserus*. so p. 292. p. 222. l. 6. l. *παρ*. p. 223. l. 1. l. *ὠφεληθεῖσα*. p. 224. l. 5. l. *ρῦσις*. l. 8. *διεσώθησαν*.















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